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AN OVERVIEW OF CHANGES TO THE PATENT LAW OF THE UNITED STATES AFTER THE PATENT LAW TREATY

RICHARD C. WILDER*

INTRODUCTION

A. *The Negotiations on the Patent Law Treaty*

In 1984, negotiations began under the auspices of the World Intellectual Property Organization ("WIPO")¹ to harmonize "grace period" provisions.² These negotiations soon developed beyond their original scope and eventually led to the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents are Concerned ("Diplomatic Conference"). The first part of the Diplomatic Conference was held June 3 to 21, 1991. While a second part of the Diplomatic Conference was scheduled for July 12 to 30, 1993,³ this has been postponed at the request of the United States of America.⁴

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1. World Intellectual Property Organization ("WIPO") is a specialized agency of the United Nations charged with the responsibility of, *inter alia*, "taking appropriate action in accordance with its basic instrument, treaties and agreements administered by it . . . for promoting creative intellectual activity . . ." *Agreement Between the United Nations and the World Intellectual Property Organization*, WIPO, art. 1, Pub. 111 (Dec. 17, 1974).

2. See *Committee of Experts on the Grace Period for Public Disclosure of an Invention Before Filing an Application*, WIPO, 1st Sess., Doc. GP/CE/1/2 Rev. (July 27, 1984). So-called "grace period" provisions exempt certain disclosures made during a specified time prior to the filing or priority date of an application, from affecting the patentability of the claimed invention. See *infra* notes 157-67 and accompanying text for a discussion of grace periods.

3. See *Draft Report*, International Union for the Protection of Industrial Property (Paris Union), WIPO, 19th Sess., 9th Extraordinary, ¶ 5, Doc. P/A/XIX/4 Prov. (Sept. 29, 1992).

4. See *Draft Report*, International Union for the Protection of Industrial Property (Paris Union), WIPO, 20th Sess., 10th Extraordinary, ¶¶ 9 and 38, Doc. P/A/XX/1 Prov. (Apr. 5, 1993). There, the Delegation of the United States of America stated that "[a]s the Patent Law Treaty had been controversial in the United States of America, particularly with respect to the issue of first-to-file, the new Administration desired to make a thorough review of the issue in order to determine whether to proceed to a Diplomatic Conference. As of this time, the President of the United States of America had not yet named a person to

At the first part of the Diplomatic Conference, the participants discussed a document known as the "Basic Proposal" for the Treaty and the Regulations.⁵ While the Paris Union Assembly⁶ decided that no final decisions could be taken at the first part of the Diplomatic Conference,⁷ the International Bureau of WIPO recently issued a document which takes into consideration discussions at the first part of the Diplomatic Conference and makes "suggestions that are intended to help find solutions where agreement so far has not been reached."⁸ Differences between the Patent Law Treaty ("PLT") and the "observations" of the International Bureau of WIPO are discussed in this Article.

This Article discusses changes⁹ that the United States must make to its patent law¹⁰ in order to comply with its obligations under the PLT¹¹ if the PLT is adopted¹² in its present form. Ad-

serve as Commissioner of Patents and Trademarks to conduct such a review." *Id.* ¶ 10(a).

5. *Draft Treaty Supplementing the Paris Convention for the Protection of Industrial Property as Far as Patents are Concerned (Patent Law Treaty)*, WIPO, Doc. PLT/DC/3 (Dec. 21, 1990) [hereinafter PLT], reprinted in *Records of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as Far as Patents are Concerned*, WIPO, Diplomatic Conference, pt. 1, at 11-53 (1991) [hereinafter *Records*]. Since the PLT is reproduced as an appendix to this Symposium, all future citations will cite to the appropriate provisions in the PLT only.

The PLT is a "special agreement . . . for the Protection of Industrial Property" under Article 19 of the Paris Convention. PLT, *supra*, Preamble ("[The PLT] constitutes a special agreement within the meaning of Article 19 of the Paris Convention for the Protection of Industrial Property.").

6. The Paris Union Assembly is the body that governs activities under the Paris Convention, including convening the Diplomatic Conference. See *Paris Convention for the Protection of Industrial Property*, WIPO, art. 13(2)(a), Doc. 274(E) (1992) [hereinafter *Paris Convention*].

7. See *Report*, WIPO, 17th Sess., 8th Extraordinary, ¶ 27, Doc. P/A/XVII/2 (Apr. 30, 1991) (stating that it "was understood that the final decisions on all articles would be made in the second part of the Diplomatic Conference").

8. *Observations of the International Bureau Following the First Part (1991) of the Diplomatic Conference*, WIPO, Introduction ¶ 1, Doc. PLT/DC/69 (Jan. 29, 1993) [hereinafter *Observations*].

9. Consequently, provisions in the Articles and Rules of the PLT which do not appear to require changes to United States law are not discussed, except where necessary to provide background to the provisions that are discussed.

10. For purposes of this Article, the phrase "United States law" refers collectively to the patent law of the United States, contained in Title 35 of United States Code ("U.S.C."), the regulations promulgated under that law and contained in Title 37 of the Code of Federal Regulations ("C.F.R."), and relevant case law.

11. All Articles and Rules of the PLT are directed, either expressly or implicitly, to the Contracting Parties, one of which may be the United States. Consequently, the PLT, by its terms, addresses itself to the political, not the judicial department, and Congress must execute the obligations under the PLT before they can become a rule for United States courts to follow. See *Foster v. Neilson*, 27 U.S. (2 Pet.) 253 (1829). In *Foster*, the court stated:

Our constitution declares a treaty to be the law of the land. It is, consequently, to be regarded in courts of justice as equivalent to an act of the

mittedly, it may not be possible to anticipate all the changes that will be required to United States law by adoption of the PLT.¹³ Such changes will be fully exposed only with an examination and testing of United States law following the adoption of the PLT.

B. Articles and Rules of the PLT Discussed

The PLT consists of 39 Articles and 13 Rules. A number of Articles and Rules, however, are purely administrative in nature and are not addressed further. These include the administrative paragraphs (i), (iii) to (vii), and (x) to (xiv) of Article 2, Articles 27 to 39, and Rules 11 to 13.¹⁴ Furthermore, while the Preamble and Article 1 (Establishment of a Union) may be of some interest in terms of international public law, these sections would not likely directly influence domestic legislation enacted pursuant to obligations under the PLT.¹⁵ Therefore, the substance of the Preamble and Article 1 are not examined.

legislature, wherever it operates of itself, without the aid of any legislative provision. But when the terms of the stipulation import a contract, when either of the parties engages to perform a particular act, the treaty addresses itself to the political, not the judicial department; and the legislature must execute the contract before it can become a rule for the Court.
Id. at 314.

In a word, then, the PLT is not a "self-executing" treaty. See *Cameron Septic Tank Co. v. Knoxville*, 227 U.S. 39 (1913) (holding that the Paris Convention was not self-executing); *Robertson v. General Elec. Co.*, 32 F.2d 495, 500 (4th Cir. 1929) (holding that while treaties affecting patent rights may be self-executing, they are generally not so interpreted "unless their language compels a different interpretation"), *cert. denied*, 280 U.S. 571 (1929).

12. The term "adopted" means that the following four steps are taken: (i) the Diplomatic Conference reconvenes; (ii) the Diplomatic Conference, in its second or subsequent parts, concludes the PLT; (iii) the United States signs the PLT; and, (iv) the United States ratifies the PLT.

13. For example, a United States district court case involving an international patent application resulted in an apparently unexpected holding. The court held that United States law regarding unity of invention conflicted with Article 27 of the Patent Cooperation Treaty ("PCT"). The PCT provides that no national law shall require compliance with requirements relating to the form or content of an international application different from or additional to those set forth in the PCT. *Caterpillar Tractor Co. v. Commissioner of Patents & Trademarks*, 650 F. Supp. 218, 220 (E.D. Va. 1986) (holding that a United States Patent and Trademark Office rule which allows, in addition to a claim to a given process, a claim to an apparatus or means specifically designed to carry out the process (that is, it cannot be used to practice another materially different process), was in conflict with a PCT rule which allows claims to an apparatus or means "specifically designed" for carrying out the claimed process).

14. While these Articles and Rules are of interest to the United States as a Contracting Party, they will not occasion any changes to United States patent law.

15. Indeed, the International Bureau of WIPO stated "[i]n view of the fact that most of the treaties administered by WIPO have no *preamble*, and the fact that a preamble carries no legal significance, it is suggested that the preamble be deleted." *Observations, supra* note 7, ¶ P.A (emphasis in original).

Moreover the Paris Union Assembly, in a session held from September 21 to 29, 1992, recommended that the following articles be removed from the PLT: Articles 10, 19, 22(1), 24, 25 and 26.¹⁶ Because of this, these Articles will not be explored here.¹⁷

Likewise, for the reasons that follow, Articles 7(2), 14 and 18(2) are not discussed here. Article 7(2) deals with delayed filing of a subsequent application.¹⁸ The Article restores a party's right to claim priority where the twelve-month priority period has passed and no application claiming priority has been filed. In such cases, if an application claiming priority is filed within two months from the end of the twelve-month priority period, the right of priority is restored. The entire paragraph is currently in brackets which signifies that it is not part of the PLT. Instead, it has the status of a proposal for amendment if presented by a Delegation.¹⁹ Moreover, at the first part of the Diplomatic Conference, participants concluded that there was insufficient support for Article 7(2), that it would not be retained and therefore would be omitted from further discussion.²⁰ Accordingly, Article 7(2) is not further discussed here.

Article 14 requires that national laws contain certain provisions regarding the amendment or correction of applications. This provision does not require any change to current United States law and therefore there is no need to discuss it here.

Finally, Article 18(2) prohibits Contracting Parties from allowing any party to oppose the grant of patents.²¹ While United States law does provide for the reissue of patents²² and the reexamination of patents,²³ it does not provide for a so-called "pre-grant opposition" prohibited by Article 18(2). Therefore, Article 18(2) is

16. See *Draft Report*, *supra* note 3, ¶ 18. Articles 10, 19, 22(1), 24, 25, and 26 of the PLT concern, respectively, exclusions from patentability, rights conferred by a patent, term of patents, reversal of the burden of proof, obligations of the rights holder, and remedial measures under national legislation. PLT, *supra* note 5, arts. 10, 19, 22(1), 24-26.

17. While the Paris Union Assembly has recommended that these Articles be deleted from the PLT, the Diplomatic Conference must make the final decision as to their deletion. See *Draft Report*, *supra* note 3, ¶ 17. Consequently, there can be no guarantee that these articles will not figure in the PLT if it is adopted, although confidence in that result is very high.

18. PLT, *supra* note 5, art. 7(2).

19. *Draft Rules of Procedure*, Preparatory Meeting for the Diplomatic Conference, Rule 29(1)(c), Doc. PLT/DC/2 (Nov. 26, 1990), *reprinted in Records*, *supra* note 5, at 72.

20. *Summary Minutes (Main Committee I)*, Main Committee I of the Diplomatic Conference, ¶ 487 [hereinafter *Summary Minutes I*], *reprinted in Records*, *supra* note 5, at 294.

21. PLT, *supra* note 5, art. 18(2).

22. 35 U.S.C. § 251 (1988).

23. 35 U.S.C. §§ 301-07 (1988).

not further discussed.²⁴

The Articles discussed then are Articles 2(ii), (viii), and (ix), 3-6, 7(1), 8, 9, 11-17, 18(1), 20, 21, 22(2), and 23, as well as the Rules corresponding to these Articles. In order to put this discussion in a form more comprehensible to practitioners unfamiliar with the PLT, this Article is divided into four sections which generally track the life of a patent, from application to enforcement. Section I discusses the procedural aspects of filing and prosecuting patent applications. Section II outlines the substantive requirements for patentability. Section III examines the procedures for making changes to issued patents and revocation. Finally, Section IV addresses the extent of protection of claims and enforcement of patents.

I. PROCEDURAL ASPECTS OF FILING AND PROSECUTING PATENT APPLICATIONS

For purposes of this Article, the procedural aspects of a patent application include the following: requirements for establishing a filing date;²⁵ claiming of priority;²⁶ unity of invention;²⁷ naming of the inventor;²⁸ publication of applications;²⁹ and, time limits for search and substantive examination.³⁰

A. *The Requirements for Establishing a Filing Date*

The most important event in the life of a patent application is establishing the filing date. This is no less true under the regime required by the PLT. Assuming that the Articles and Rules of the PLT discussed are adopted in their present form, the filing date will have the following implications:

- (1) it shall be the date from which the term of the patent is measured;³¹
- (2) it (or the earliest priority date) will be used to determine who has a right to a patent where two or more applications are filed for the same invention;³²

24. See *infra* notes 211-19 and accompanying text for a discussion of Article 18(1) which deals with the administrative revocation of patents.

25. See PLT, *supra* note 5, art. 8 (discussing filing date).

26. See *id.* art. 7 (discussing provisions regarding the belated claiming of priority).

27. See *id.* art. 5 (discussing provisions regarding unity of invention).

28. See *id.* art. 6 (discussing provisions regarding identification of the inventor).

29. See *id.* art. 15 (discussing provisions regarding the publication of applications).

30. See PLT, *supra* note 5, art. 16 (discussing provisions regarding time limits for search and substantive examination).

31. *Id.* art. 22(2), alternative B.

32. *Id.* art. 9(2)(ii).

- (3) it (or the priority date) will establish the date from which prior art is retrospectively established;³³
- (4) it (or the priority date) will establish the date prior to which the grace period is counted;³⁴
- (5) it (or the priority date) will establish the date from which a fixed period of time is counted to determine when the application is published;³⁵
- (6) it (or the priority date) will establish the date from which time limits for search and substantive examination are counted;³⁶ and,
- (7) it (or the priority date) will establish the date before which a "prior user" may have rights to continue use of an invention.³⁷

Article 8(1)³⁸ states that the filing date of an application shall be³⁹ the date upon which the following elements, at least, are received: "(i) an express or implicit indication that the granting of a patent is sought; (ii) indications allowing the identity of the applicant to be established; (iii) a part which, on the face of it, appears to be a description of an invention."⁴⁰

In contrast, the United States requires different elements for establishing an application filing date. The United States' requirements are provided for in 35 U.S.C. section 111⁴¹ and 37 C.F.R. section 1.53.⁴² Under section 111, a filing date is established for an application that contains a specification (including at least one

33. *Id.* arts. 11(2)(b), 13(1)(a).

34. *Id.* art. 12(1).

35. PLT, *supra* note 5, art. 15(1).

36. *Id.* art. 16.

37. *Id.* art. 20(1).

38. *See id.* art. 8(1). At the first part of the Diplomatic Conference, the Delegation of Switzerland proposed to amend Article 8 and accompanying Rule 7. They sought to transfer from Rule 7 to Article 8 the provision regarding procedures in the case of non-compliance with requirements and to simplify the system of time limits. *Draft Article 8 and Rule 7, The Delegation of Switzerland, Doc. PLT/DC/56 (June 11, 1991), reprinted in Records, supra note 5, at 154-56. See also Summary Minutes I, supra note 20, ¶ 591.1, reprinted in Records, supra note 5, at 308 (using the intervention by the Delegation of Switzerland to explain its proposal contained in WIPO Doc. PLT/DC/56).*

The International Bureau of WIPO stated that, with certain minor modifications, "[i]n view of the broad support for the proposal of the Delegation of Switzerland . . . regarding Article 8 and Rule 7, it would seem that the basic proposal should be replaced by the said proposal" *Observations, supra note 8, ¶ 8.A.* Accordingly, the discussion in this Article regarding Article 8 and Rule 7 is based upon the amended versions appearing in the proposal of the Delegation of Switzerland in WIPO Doc. PLT/DC/56.

39. *See PLT, supra note 5, art. 8(1).* This article uses the mandatory "shall" which obliges Contracting Parties to ensure that their national laws comply with its provisions. Other articles are simply facultative in that they allow a Contracting Party to establish a given provision in its national law, but do not require it. An example of a facultative provision is Article 8(2) which allows, but does not require, a Contracting Party to refuse a filing date if certain additional requirements are not met. *Id.* art. 8(2).

40. *Id.* art. 8(1).

41. 35 U.S.C. § 112 (1988).

42. 37 C.F.R. § 1.53 (1992).

claim)⁴³ and any required drawing.⁴⁴ Therefore, to comply with Article 8(1), the United States would need to eliminate the requirement that at least one claim be included with an application before that application can be accorded a filing date.⁴⁵ Moreover, 35 U.S.C. section 111 will have to be changed to delete the requirement that an application include an oath by the applicant. In its place, the United States may require an express or implicit indication in a patent application that the grant of a patent is sought, as provided in Article 8(1)(i) of the PLT.

B. So-Called "Telex" Filings

Article 8(4) concerns replacement of the description, claims and drawings by referring to another application.⁴⁶ This provision provides for so-called "telex" or "fax" filings in which an applicant may file a patent application which does not include a description, claim, or drawing by simply referring to a previously filed application which contained those elements. Such a reference could be, for example, a serial number of an application filed in another office, the priority of which is claimed under the Paris Convention.

United States law has no provision similar to Article 8(4).⁴⁷ Thus, if Alternative A of Article 8(4) is adopted, making the provision mandatory, the United States would have to amend its laws to allow for the replacement of the description, claims and drawings by reference to another application. If, however, Alternative B is adopted, making the provision facultative, the United States may, but would not be compelled to, amend its law.

43. See 35 U.S.C. § 112 (stating that the specification requires the application to include a written description and to conclude with one or more claims).

44. See also 37 C.F.R. § 1.53 (providing that the filing date is the date upon which a description, at least one claim, and any required drawing are filed in the name of the actual inventor or inventors).

45. PLT, *supra* note 5, art. 8(6) (prohibiting "[i]n respect of the filing date . . . requirement[s] additional to or different from those provided for in the preceding paragraphs . . ."). The requirement that at least one claim be included with an application is seen as being a prohibited additional requirement.

46. *Id.* art. 8(4) (containing two alternatives: "A" which would make it mandatory; and "B" which would make it facultative).

47. Under United States practice, however, "nonessential" subject matter, that is material other than that necessary for enablement or description, may be incorporated by reference into patents or applications published by foreign countries or regional patent offices. UNITED STATES DEPARTMENT OF COMMERCE, PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(p)B (5th ed. 1983 & Supp. 1992) [hereinafter MPEP]. Article 8(4) allows for the filing of applications in which essential *and* nonessential subject matter is filed by referring to a previously filed application. PLT, *supra* note 5, art. 8(4).

C. Claiming of Priority

Article 7(1) pertains to claims to priority based upon earlier applications⁴⁸ in which the maximum time allowed for submitting a claim of priority is "not more than four months from the date on which the 12-month priority period expired."⁴⁹ This time requirement ensues because of the eighteen-month publication system. It allows sufficient time for information regarding patent applications to be incorporated into a later-filed application prior to publication of the later-filed application.⁵⁰

In contrast, United States law, in cases of foreign priority, permits filing of a claim for priority "in the Patent and Trademark Office before the patent is granted, or at such time during the pendency of the application as required by the Commissioner not earlier than six months after the filing of the application in this country."⁵¹ Assuming the PLT is adopted in its present form, the United States would have to modify its law to incorporate a maximum allowable time limit for submitting a priority claim. That time limit would be measured from the priority date.

A separate question arises in the case of continuation, continuation-in-part, or divisional applications. If Article 7(1) were interpreted to apply to such applications, the United States would have to change its law.⁵² In particular, a "priority claim" in a divisional, continuation or continuation-in-part application would have to be made within a specified time limit. Such time limit would be tied to the filing date of the patent application or its priority date, depending upon the form of Article 7(1) ultimately adopted.

There are indications in the Records of the Diplomatic Conference that Article 7(1) is not intended to apply to divisional, continu-

48. PLT, *supra* note 5, art. 7(1).

49. *Id.* art. 7(1).

50. *See id.* art. 15 (outlining publication of application requirements). The International Bureau of WIPO recommended that the method of computing the upper time limit be changed from "not more than four months from the date on which a period of 12 months from the filing date of the earlier application expired" to "not . . . later than two months before the date on which, taking into account the priority claim, the subsequent application is to be published under Article 15(1)." *Observations, supra* note 8, ¶ 7.B.

51. 35 U.S.C. § 119 (1988).

52. United States law currently provides that a later application shall have the same effect as an earlier application:

[A]s though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

35 U.S.C. § 120 (1988).

ation or continuation-in-part applications.⁵³ There are, however, contrary or at least ambiguous indications as well.⁵⁴ Accordingly, unless it is clarified in the Records of the Diplomatic Conference that Article 7(1) pertains only to delayed submissions of priority claims under the Paris Convention, and not to claims to the benefit of an earlier filing date in a divisional, continuation or continuation-in-part application, there is cause for concern that United States law would have to change to limit the time during which a claim to such benefit may be made.

D. Unity of Invention

Unity of invention requirements in national laws are intended to ensure that a patent is applied for, and granted with respect to, only one invention. The provisions contained in Article 5, corresponding Rule 4, and the Notes to Rule 4, were the result of years of work undertaken by the Japanese Patent Office, the European Patent Office and the United States Patent and Trademark Office ("USPTO"). These Offices sought to develop a common practice regarding unity of invention, based principally on practice before the European Patent Office.⁵⁵

The result, embodied in Article 5 and Rule 4, is nearly identical to the corresponding provisions in the Regulations under the Patent

53. See *Summary Minutes I*, *supra* note 20, ¶ 396, reprinted in *Records*, *supra* note 5, at 291 (intervention of the Delegation of the United States of America stating that "if the time limit were limited merely to the Convention priority period of 12 months, it might be necessary to clarify that divisional applications, continuing applications and continuations in part were to be treated differently"); *id.* ¶ 400, reprinted in *Records*, *supra* note 5, at 280-81 (intervention of the Delegation of Germany asserting that it was not considered "necessary to deal with the question of divisional applications and continuations-in-part in the present context. [The Delegation] considered that divisional applications would have accorded to them the priority date claimed by the parent application and were outside the scope of the provision being discussed at that stage.").

54. See *Summary Minutes I*, *supra* note 20, ¶ 404, reprinted in *Records*, *supra* note 5, at 281-82. The Delegation of Japan opined that:

[I]t was not necessarily in agreement with the approach suggested by the Delegation of Germany concerning divisional applications and continuations-in-part . . . [T]he divisional application, the continuation or continuation-in-part had an independent status from the parent application so that a separate priority claim would be required in respect of them.

Id. See also *id.* ¶ 412.2, reprinted in *Records*, *supra* note 5, at 283 (proposal by the Chairman of Main Committee I that "the issue of divisional applications and of applications known in English as 'continuations' or 'continuations-in-part' be dealt with during the discussions on Article 2").

55. See *Report, Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions*, 6th Sess., ¶ 83, Doc. HL/CE/VI/5 (Apr. 28, 1989) (containing a statement by the Delegation of the United States of America that the proposed unity procedure was "based upon and consistent with EPO practice . . .").

Cooperation Treaty ("PCT").⁵⁶ In particular, Article 5(1) requires that an "application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ('requirement of unity of invention')"⁵⁷ and is identical to Rule 13.1 under the PCT, with the exception that the term "international application" in the PCT replaces "application" in the PLT. Similarly, Rule 4(1) repeats, *mutatis mutandis*, the provisions found in Rule 13.2 under the PCT⁵⁸ and Rule 4(2) repeats, *mutatis mutandis*, the provisions found in Rule 13.3 of the PCT.⁵⁹

The fact that the provisions regarding unity of invention have been carried over from the PCT to the PLT provides a good indication of what changes would be required to United States law. In response to a decision that United States law on unity of invention was contrary to the PCT,⁶⁰ the United States law was amended⁶¹ to establish two procedures for determining unity of invention.⁶² Thus, if the United States adopts the PLT in its present form, it could change its law to comply with Article 5 and Rule 4 by adapting the provisions of current law that cover international applications under the PCT to extend to all applications. A consideration of the implications of such an extension is beyond the scope of this Article. An indication of the implications can be found, however, in the Notes on Rule 4 under the PLT⁶³ which is an appendix to this Article.

56. *Regulations Under the Patent Cooperation Treaty*, WIPO, Doc. No. 274(E) (July 1, 1992) (hereinafter *PCT Regulations*).

57. PLT, *supra* note 5, art. 5(1).

58. *PCT Regulations*, *supra* note 56, Rule 13.2.

59. *Id.* Rule 13.3.

60. *Caterpillar Tractor Co. v. Commissioner of Patents and Trademarks*, 650 F. Supp. 218 (E.D. Va. 1986). See *supra* note 13 for the court's holding in *Caterpillar*.

61. 37 C.F.R. §§ 1.475-1.489 (1992) (implementing unity of invention for international applications under Article 13 of the PCT).

62. See MPEP, *supra* note 47, §§ 801-09 (considering unity of invention for domestic applications). See also *id.* § 1868 (considering unity of invention for international applications).

63. *Notes on the Basic Proposal for the Treaty and Regulations*, WIPO, Rules 4.01 to 4.28, Doc. PLT/DC/4 (Dec. 21, 1990). These notes, with some minor changes, were originally contained in a document proposed by the Delegation of the United States of America at the Fifth Session, Second Part, of the Committee of Experts on the PLT. *Draft Article and Draft Rule on Unity of Invention*, Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions, WIPO, 5th Sess., 2d pt., Doc. HL/CE/V/5 (Nov. 25, 1988) (proposal by the United States of America including a draft Article and Rule on unity of invention, together with explanatory notes, "which were developed jointly by the Japanese Patent Office, the European Patent Office and the United States Patent and Trademark Office . . .").

E. Identification and Mention of Inventor

Article 6(1)(a) provides that the "application shall, as prescribed, identify the inventor or, where there are several inventors, all of them"⁶⁴ and Article 6(1)(b) provides that "[n]o patent may be granted on an application that does not identify an inventor."⁶⁵ United States law is consistent with Article 6(1)(a) in that the identity of the inventor is made, at least, in the oath by the applicant.⁶⁶

Article 6(2) requires that any publication from the office which contains the application or the granted patent mention the inventor or inventors as such.⁶⁷ Because United States law does not currently provide for the publication of patent applications,⁶⁸ the USPTO will have to promulgate a rule which, in the event pending applications are published, requires the mention of the inventor in any publications which contain the application.

In addition, if the PLT is adopted in its present form, the United States must amend its law to comply with the proviso found in Article 6(2) which states that "any inventor may request, in a declaration signed by him and filed with the Office, that such publications should not mention him as inventor, in which case the Office shall proceed accordingly."⁶⁹ Such a proviso especially impacts patent offices, such as the USPTO, that upon issuance of a patent open the files to public inspection. In these cases, if an inventor requests that he not be named, the office must redact the inventor's

64. PLT, *supra* note 5, art. 6(1)(a); *see also id.* Rule 6 (prescribing that "[t]he identification of the inventor referred to in Article 6(1)(a) shall consist of the indication of the inventor's name and address").

65. *Id.* art. 6(1)(b).

66. The applicant is required to take an oath, which must state that the applicant "believes himself to be the original and first inventor . . ." 35 U.S.C. §§ 111, 115 (1988). In cases where there are several inventors, they shall apply for a patent jointly and each make the required oath. 35 U.S.C. § 116 (1988). Moreover, "[t]he residence and post office address of the applicant must appear in the oath or declaration if not stated elsewhere in the application." 37 C.F.R. § 1.33 (1992). Absent an oath being filed in the form required, an application shall be regarded as abandoned and no patent shall, of course, be granted thereon. 35 U.S.C. § 111.

Further, consistent with Rule 6(2) which requires that an applicant be accorded a reasonable period of time within which to comply with the requirements of Article 6(1)(a), United States law provides that if the application does not include an oath, it may be submitted after the specification and any required drawing are submitted within a period prescribed by the Commissioner of Patents and Trademarks. 35 U.S.C. § 112 (1988).

67. PLT, *supra* note 5, art. 6(2); *see also id.* Rule 6(1)(b) (requiring that the mention of the inventor referred to in Article 6(2) consist of at least the indication of the inventor's name).

68. *See infra* notes 71-82 and accompanying text for a discussion of publication of patent applications.

69. PLT, *supra* note 5, art. 6(2) (providing regulations for identification of the inventor).

name from all papers or documents that will be open for public inspection.

It should be noted, however, there is doubt as to whether the proviso in Article 6(2) will garner sufficient support for its adoption at the second part of the Diplomatic Conference.⁷⁰ If that proviso is deleted or made facultative, the United States would not have to amend its law to allow an inventor to request that publications of the USPTO not mention him as the inventor.

F. *The Publication of Pending Applications*

Article 15 imposes an obligation on Contracting Parties to publish applications after a fixed period of time from the filing date or, where priority is claimed, the priority date.⁷¹ The fixed period of time is eighteen months, except for Contracting Parties, such as the United States, that do not currently provide for the publication of applications. In these situations, the Contracting Parties may elect a fixed period of time of twenty-four months.⁷²

The requirement that applications be published is subject to two exceptions.⁷³ First, a Contracting Party need not publish an application based on reasons of national security.⁷⁴ Second, an application may not be published if its pendency ceases⁷⁵ within a specified period of time prior to when publication is to occur.⁷⁶

While the law in the United States provides for printing patents,⁷⁷ it does not provide for publishing applications. To the con-

70. See *Observations, supra* note 8, ¶ 6.B (reporting statement by the International Bureau of WIPO that the omission of Article 6(2) "would cause great difficulties, for example, for the States party to the European Patent Convention").

71. PLT, *supra* note 5, art. 15.

72. *Id.* art. 15(1)(b).

73. *Id.* arts. 15(3), 15(4).

74. *Id.* art. 15(3).

75. See *id.* art. 15(4) (stating that "[n]o application may be published if it is withdrawn or abandoned or is considered withdrawn or abandoned . . ."). The International Bureau of WIPO has suggested that this be revised to read "[n]o application may be published if it ceases to be pending . . ." *Observations, supra* note 8, ¶ 15.B.

76. PLT, *supra* note 5, art. 15(4). The time period prior to when publication is to take place, as specified in Article 15(4)(i), is earlier than two months preceding the expiration of the fixed period of time upon which publication is to take place. *Id.* Article 15(4)(ii) provides that the period of time may be less than the two months if the pendency of the application ceases prior to the completion of the technical preparations for publication. *Id.*

77. See 35 U.S.C. § 11 (1988). Section 11 states in pertinent part:

- (a) The Commissioner may print, or cause to be printed, the following:
1. Patents, including specifications and drawings, together with copies of the same. The Patent and Trademark Office may print the headings of the drawings for patents for the purpose of photolithography.

trary, the USPTO preserves the secrecy of pending patent applications.⁷⁸ It is only after the USPTO issues a patent that the specification, drawings and all papers relating to the case are opened for public inspection.⁷⁹ Thus, Article 15 calls for a major revision of the law of the United States and has been the focus of significant debate.⁸⁰ If the PLT were adopted the United States would have to amend its patent law to allow for publication of applications⁸¹ and to provide a means for announcing such publications.⁸²

G. Time Limits for Search and Examination of Applications

Article 16 prescribes strict time limits for search and examination.⁸³ Conversely, United States law contains no corresponding provision. Accordingly, were the PLT adopted, the United States would have to revise its law to add time limits for search and examination.

Article 16(1) prescribes that Contracting Parties providing for substantive examination shall, at the time of publication of the application, publish a search report which cites "any documents that reflect the prior art relevant to the invention claimed in the application."⁸⁴ Implicit in Article 16(1) is the assumption that an Examiner will conduct a separate search and examination. However, the United States does not bifurcate its system such that an examination follows a prior art search. Rather, one Examiner performs the search and examination concurrently. Because of this, the USPTO

Id.

78. See 35 U.S.C. § 122 (1988) (stating that "[a]pplications for patents shall be kept in confidence by the Patent and Trademark Office . . ."); 37 C.F.R. § 1.14(a) (1992) (providing that "no information will be given . . . respecting the filing . . . pendency . . . or subject matter of any particular [patent] application").

79. 37 C.F.R. § 1.11 (1992).

80. See, e.g., William J. Brunet, *Impact of Patent Harmonization Treaty on Drafting and Prosecuting United States and Foreign Patent Applications*, in PATENTS, COPYRIGHTS, TRADEMARKS, AND LITERARY PROPERTY COURSE HANDBOOK SERIES — GLOBAL INTELLECTUAL PROPERTY SERIES: PRACTICAL STRATEGIES — PATENT 177, 187 (1991) (discussing the advantages and disadvantages of an early publication requirement); Lee J. Schroeder, *The Harmonization of Patent Laws*, in ALI-ABA COURSE OF STUDY — SECURING AND ENFORCING PATENT RIGHTS 473, 492 (1990) (noting that early publication will allow United States attorneys to procure English language versions of foreign patents but will also result in additional costs to USPTO if issue cannot be complete within the required time period).

81. Along with legislation providing for publication of applications, legislation providing for confidentiality of applications will have to be amended to allow confidentiality only up to the date when the office publishes the application.

82. PLT, *supra* note 5, Rule 8.

83. *Id.* art. 16.

84. *Id.* art. 16(1)(a).

does not generate a search report, which Article 16(1)(a) requires. Accordingly, to comply with the PLT, United States law would have to be amended to establish and publish search reports at the same time the application is published.⁸⁵

Article 16(2) requires an office of a Contracting Party to begin substantive examination of an application not later than three years from the application filing date.⁸⁶ Nonetheless, a Contracting Party is free to require that a request for substantive examination be made, within the prescribed time period, before such examination takes place.⁸⁷ Finally, the office shall, whenever possible, reach a final decision on substantive examination within two years from when it began its examination.⁸⁸

In order to comply with the strict time limits of Article 16(2), the United States would need to adjust its current law in two respects. First, it must prescribe times limits within which an examination is initiated, namely, three years from the filing date. Second, the examination itself must be completed within two years from the date it is initiated.⁸⁹

II. SUBSTANTIVE REQUIREMENTS

As used in this Article, the term "substantive requirements for patentability" includes: requirements for the disclosure of an invention;⁹⁰ requirements pertaining to claims in a patent;⁹¹ who has the right to a patent;⁹² the conditions of patentability;⁹³ and, disclosures that do not affect patentability (so-called "grace period" provisions).⁹⁴

85. It should be noted, however, that the International Bureau of WIPO has suggested that the requirement in Article 16(1) of a separate search and examination and publication of a search report be dropped. *Observations, supra* note 8, ¶ 16.A. If this suggestion is adopted, then the United States would not need to amend its laws.

86. PLT, *supra* note 5, art. 16(2)(a).

87. *Id.* art. 16(2)(b).

88. *Id.* art. 16(2)(c).

89. The International Bureau of WIPO has, however, recommended amending the provision of Article 16 dealing with substantive examination. See *Observations, supra* note 8, ¶ 16.D. See also, *Addendum to Document PLT/DC/69*, WIPO, Doc. PLT/DC/69 Add. (Feb. 5, 1993) (suggesting an alternative to the text suggested in ¶ 16.D in the observations).

90. See PLT, *supra* note 5, art. 3.

91. See *id.* art. 4.

92. See *id.* art. 9.

93. See *id.* art. 11.

94. See *id.* art. 12.

A. *Requirements Pertaining to the Disclosure and Description of an Invention*

Article 3(1)(a) states that "[t]he application shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art."⁹⁵ The provision in United States law corresponding to Article 3(1)(a) of the PLT is 35 U.S.C. § 112, first paragraph.⁹⁶

Several textual differences exist between the language of Article 3(1)(a) of the PLT and that of 35 U.S.C. § 112, first paragraph. For example, 35 U.S.C. § 112 appears to include the additional requirement, as compared to Article 3(1)(a), that the description of the manner and process of "using" the invention. This lacuna in the PLT is closed by Rule 2(1)(vii), however, which requires that the description "indicate explicitly, when it is not otherwise obvious from the description or nature of the invention, the way or ways in which the invention satisfies the requirement of being useful or industrially applicable."⁹⁷ Neither this textual difference between Article 3(1)(a) of the PLT and 35 U.S.C. § 112, first paragraph, nor any others, appear to require a change to United States law.⁹⁸

95. PLT, *supra* note 5, art. 3(1)(a).

96. 35 U.S.C. § 112 (1988). The statute states in pertinent part:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same

.....

Id.

97. PLT, *supra* note 5, Rule 2(1)(vii). Compare with *In re Ziegler*, No. 91-1430, 1993 U.S. App. LEXIS 8604, at 11 (Fed. Cir. Apr. 21, 1993) ("The how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. § 101 that the specification disclose as a matter of fact a practical utility for the invention.").

98. That is not to say that there will be uniform application of Article 3, Rule 2, or any other provision of the PLT in all Contracting Parties. See, e.g., Abstract, *EPO-USPTO Examiner Exchange Program Final Report*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 5, 30 (1990) (demonstrating the difference in the application of disclosure requirements between Article 83 of the European Patent Convention ("EPC") and United States law through a comparison of results from examinations of the same pre-searched patent applications by examiners from the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO)). In this regard it should be noted that Article 3(1)(a) is substantially identical to Article 83 of the EPC. In one comparison, the USPTO examiner rejected a claim that the EPO examiner had allowed. *Id.* Both examiners agreed that the description taught how to make the device with an "amorphous metal" support. *Id.* The USPTO examiner, however, rejected the claim on the basis that the description did not teach how to use the invention because no reason was given as to why the "amorphous metal" was chosen. *Id.* See generally Abstract, *EPO-USPTO Examiner Exchange Program Final Round*, 72 J. PAT. & TRADEMARK OFF. SOC'Y 621-91 (1990).

B. Requirements Pertaining to Claims in an Application

Article 4(1) provides that "[t]he application shall contain one or more claims."⁹⁹ The United States law is consistent with this requirement by providing that "[t]he specification shall conclude with one or more claims"¹⁰⁰ In addition, Article 4(2) provides that "[t]he claims shall define the matter for which protection is sought."¹⁰¹ In contrast, United States law provides that the claims shall "particularly [point] out and distinctly [claim] the subject matter which the applicant regards as his invention."¹⁰²

While the second paragraph requirement of section 112, that the claims particularly point out and distinctly claim the subject matter of the invention, is equivalent to the Article 4(2) requirement that the claims "define" the subject matter of the invention, the second paragraph of section 112 introduces the additional requirement that the subject matter claimed be that which the "applicant regards as his invention."¹⁰³ The United States law thus injects a subjective element into determining the legal sufficiency of the claims; specifically, whether that which is claimed is indeed what the applicant regards as his invention. This element directly impacts a court's claim construction which depends on the inventor's subjective testimony as to what he regarded his invention to be when he filed the application.¹⁰⁴

Conversely, Article 4(2) has no such subjective requirement. Therefore, in order for the United States to comply with Article 4(2), it would have to eliminate the additional requirement in section 112, second paragraph that the subject matter claimed be that which the applicant regards as his invention.¹⁰⁵

Another variance exists with regard to the manner in which claims are presented. Article 4(5) addresses this issue¹⁰⁶ and Rule 3 details specific elements required in the presentation of claims.¹⁰⁷

99. *Id.* art. 4(1).

100. 35 U.S.C. § 112, ¶ 2.

101. PLT, *supra* note 5, art. 4(2).

102. 35 U.S.C. § 112, ¶ 2.

103. See *In re Harnisch*, 631 F.2d 716, 721 (C.C.P.A. 1980) (stating court's awareness of an applicant's right to define what he regards as his invention as he chooses, so long as his definition is distinct, as required by § 112, ¶ 2, and supported by enabling disclosure, as required by § 112, ¶ 1); *Ex parte Ohsumi*, 21 U.S.P.Q.2d (BNA) 1020 (Bd. Pat. App. & Interferences 1991) (holding that use of an alternative expression does not always render a claim indefinite).

104. See *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989) (rejecting approach of Board of Patent Appeals and Interferences in holding that claims should be read using the interpretation that the inventor himself places on the claims).

105. See PLT, *supra* note 5, art. 4(6) (prohibiting requirements with respect to claims that are additional to or different from those found in paragraphs (1) to (4) and (5)(a)).

106. *Id.* art. 4(5).

107. *Id.* Rule 3.

In the United States, section 112 and 37 C.F.R. section 1.75 govern presentation of claims. If the United States does not elect out of Article 4(5)(a), as is possible under Article 4(5)(b), it would have to amend its law.¹⁰⁸

Specifically, in direct contradiction to Rule 3(5)(b), 37 C.F.R. section 1.75(c) prohibits a multiple dependent claim from serving as the basis for another multiple dependent claim.¹⁰⁹ Moreover, unlike Rule 3(5)(b), United States law does not provide for claims in the cumulative. Therefore, unless the United States elects not to comply with the presentation of claims as set forth under Article 4(5)(a) or Rule 3, the United States would have to change its law to comply with Rule 3(5)(b).

C. *The Right to a Patent: First-to-File System*

The first sentence of Article 9(1) establishes the universally accepted principle that “[t]he right to a patent shall belong to the inventor.”¹¹⁰ United States law is consistent with this principle in providing that a person shall be entitled to a patent unless “he did not himself invent the subject matter sought to be patented.”¹¹¹

Article 9(2) would, if universally adopted, establish the first-to-file principle as the international standard for the grant of patents.¹¹² The principle followed under United States law is to award a patent to the first inventor, with some significant strings attached.¹¹³ Nonetheless, under certain circumstances, even that per-

108. See PLT, *supra* note 5, art. 4(5)(b) (providing that a contracting party is free to waive the requirements prescribed under Article 4(5)(a)).

109. See 37 C.F.R. § 1.75(c) (1992). Section 1.75(c) states in pertinent part: One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application. Any dependent claim which refers to more than one other claim (“multiple dependent claim”) shall refer to such other claims in the alternative only. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim.

Id.

110. PLT, *supra* note 5, art. 9(1). The second sentence of Article 9(1) is a facultative provision to allow Contracting Parties the freedom to “determine the circumstances under which the right to the patent shall belong to the employer of the inventor or to the person who commissioned the work of the inventor which resulted in the invention.” *Id.* Given the facultative nature of the provision, United States law regarding inventions made by employees or inventions that are commissioned or “made-for-hire” need not be disturbed by the PLT.

111. 35 U.S.C. § 102(f) (1988).

112. PLT, *supra* note 5, art. 9(2). The first-to-file principle holds that a patent for a given invention shall be awarded to the first inventor to file an application. In contrast, the first-to-invent principle awards a patent to the first inventor.

113. See 35 U.S.C. § 102(g). This section states that a person shall be entitled to a patent unless:

son may lose the right to a patent.¹¹⁴

In order to comply with Article 9(2) in its present form, the United States would have to make two principal changes to its patent law: (i) amend section 102 to delete any reference to an earlier date of invention as establishing a superior right to a patent; and, (ii) eliminate interference practice, including repealing section 135 and deleting references to interferences in other sections of 35 U.S.C.¹¹⁵

The first change discussed above can be accomplished if the legislature repeals all provisions in section 102, including those in paragraphs (a), (e), and (g) that refer to an earlier date of invention and adds a new section to 35 U.S.C., such as section 106 in the Patent System Harmonization Act of 1992 to implement the first-to-file principle.¹¹⁶ Certain ancillary changes will be required, including the elimination of the practice of submitting affidavits or declarations of prior invention to overcome patents or publications.¹¹⁷

[B]efore the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Id.

114. The loss of rights provisions of 35 U.S.C. § 102 are found in paragraphs (b) and (c). These paragraphs state that a person shall be entitled to a patent unless:

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
- (c) he has abandoned the invention

35 U.S.C. § 102(b) and (c).

115. Questions may arise under a first-to-file system, however, as to whether one who claims to be an inventor actually did invent the claimed subject matter or whether he or she derived the invention from another. Such cases may provide a basis for so-called "derivation" proceedings to determine if a particular invention was independently "conceived" by the first applicant, rather than "derived" from another person.

116. Patent System Harmonization Act of 1992, H.R. 4978, 103d Cong., 1st Sess., § 2605 (1992). Section 106 of which reads, in pertinent part, as follows:

- (a) IN GENERAL. -An applicant shall be entitled to a patent unless-
 - (1) the subject matter was disclosed in the prior art, which for the purposes of this section means that such subject matter was publicly known or publicly used in the United States, or patented or described in a publication in the United States or in a foreign country, before the filing date or priority date of the application for patent
 - (3) the subject matter is described in an application for patent of another applicant that has been previously filed in the United States and has been opened to public inspection

Id. Other portions of § 106 of the Patent System Harmonization Act of 1992 are discussed, as appropriate, below.

117. 37 C.F.R. § 1.131 (1992).

Moreover, 35 U.S.C. section 104 which, *inter alia*, prohibits an applicant from establishing a "date of invention by reference to knowledge or use thereof, or other activity with respect thereto, in a foreign country"¹¹⁸ would be repealed since, by adopting the first-to-file principle, any reference to a date of invention, whether domestic or foreign, would be irrelevant.

The second change can be instituted by simply deleting any references to interferences in the United States Code. Further, the legislature would have to "grandfather out" interference practice in the United States. Patent applications filed prior to the effective date of the PLT¹¹⁹ would be subject to the first-to-invent principle. Such applications may be involved in interference proceedings to determine priority of invention and, therefore, the right to a patent. Applications filed after the effective date of legislation implementing the first-to-file principle in United States law would be subject to the first-to-file principle and would, therefore, not be subject to interference proceedings.

D. Conditions of Patentability

Article 11(1) establishes that "[i]n order to be patentable, an invention shall be novel, shall involve an inventive step (shall be non-obvious) and shall be, at the option of the Contracting Party, either useful or industrially applicable."¹²⁰ The corresponding provisions in United States law are found in sections 101, 102, and 103. In particular, section 101 requires an invention to be new and useful to be patentable;¹²¹ section 102 requires an invention to be novel to be patentable;¹²² and section 103 requires an invention to be non-obvious to be patentable.¹²³ Accordingly, no change to United States law is deemed required by Article 11(1).

As to novelty, Article 11(2)(a) states that "[a]n invention shall be considered novel if it does not form part of the prior art. For the determination of novelty, items of prior art may only be taken into account individually."¹²⁴ The second sentence was added specifically to prevent the practice of "mosaicking."¹²⁵ This practice allows the novelty of an invention to be defeated by a mosaic of

118. 35 U.S.C. § 104 (1988).

119. The PLT is not a "self-executing" treaty and would, therefore, require implementing legislation so as to bring it into force. See *supra* note 10.

120. PLT, *supra* note 5, art. 11.

121. 35 U.S.C. § 101.

122. *Id.* § 102.

123. *Id.* § 103.

124. PLT, *supra* note 5, art. 11(2)(a).

125. *Report on the First Part of the Eighth Session, Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions*, WIPO, 8th Sess., pt. 1, ¶¶ 358-64, Doc. HL/CE/VIII/26 (June 22, 1990).

various items found in the prior art. This is seen as being consistent with the "strict" approach to novelty taken in the United States.¹²⁶

More problematic is the definition of the "prior art" found in Article 11(2)(b) which states that it "shall consist of everything which, before the filing date or, where priority is claimed, the priority date of the application claiming the invention, has been made available to the public anywhere in the world."¹²⁷ Notwithstanding this definition, subparagraph (c), if adopted, would provide that a Contracting Party is "free to exclude from the prior art matter made available to the public, by oral communication, by display or through use, in a place or space which is not under its sovereignty"¹²⁸ For the reasons that follow, there is some doubt, however, as to whether the provisions of subparagraph (c) will be adopted by the Diplomatic Conference.

In the PLT, subparagraph (c) has been placed in brackets giving it the status of a proposal for amendment to the PLT if properly presented at the Diplomatic Conference.¹²⁹ Accordingly, the Delegation of the United States of America presented Article 11(2)(c) as a proposal at the first part of the Diplomatic Conference.¹³⁰ Following a discussion on Article 11(2)(c), the Chairman of Main Committee I concluded that it "did not have the necessary support to be considered as a basis for further discussions."¹³¹ Nevertheless, the International Bureau of WIPO observed that the freedom it allows:

is needed for the acceptance of the Treaty by several countries, including the United States of America. Since the matter is not of primary importance, it is suggested that, despite the fact that a majority was for omitting this subparagraph, the subparagraph be inserted in the basic

126. See *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707 (Fed. Cir. 1984). There the court observed that it has:

[R]epeatedly stated that the defense of lack of novelty (i.e. "anticipation") can only be established by a single prior art reference which discloses each and every element of the claimed invention While the teaching in the prior reference need not be *ipsissimis verbis*, nevertheless there must be a teaching with respect to the entirety of the claimed invention.

Id. at 715-16.

127. PLT, *supra* note 5, art. 11(2)(b). Clearly, § 102(d) would be rendered redundant by a more general provision implementing Articles 9 and 11, such as that found in the proposed § 106 to 35 U.S.C. in the Patent Harmonization Act of 1992, and could be deleted.

128. PLT, *supra* note 5, art. 11(2)(c).

129. See *supra* note 19 and accompanying text (discussing provisions in the Rules of Procedure for the Diplomatic Conference which provisions have been placed in square brackets).

130. See *Draft Articles 9, 11 and 13*, The Delegation of the United States of America, Doc. PLT/DC/6 (Mar. 1, 1991), *reprinted in Records, supra* note 5, at 120; *Summary Minutes I, supra* note 20, ¶ 839, *reprinted in Records, supra* note 5, at 341.

131. *Summary Minutes I, supra* note 20, ¶ 894, *reprinted in Records, supra* note 5, at 347.

proposal and the square brackets around it be removed.¹³²

If the Diplomatic Conference adopts this suggestion, the provisions of Article 11(2)(c) would become part of the PLT unless deleted or otherwise altered by a subsequent amendment at the second part of the Diplomatic Conference. If it becomes part of the PLT, the United States would not have to change its law regarding the limitation that only knowledge, use by others, public use, or sales in the United States can qualify as prior art.¹³³

If the suggestion of the International Bureau of WIPO is not adopted by the Diplomatic Conference at its second part, the United States will have to incorporate a definition of the "prior art" in its patent law which includes everything made available to the public before the filing or priority date, anywhere in the world, whether in a tangible form, such as a written publication, or in an intangible form, such as through an oral communication or through display or use.

1. Prior Art "Made Available to the Public"

The PLT does not define the phrase "made available to the public" as found in the definition of prior art of Article 11(2)(b). Absent some limitation or qualification of the term "available," there is a very real concern that United States law would have to be changed so that the "prior art" includes all information, even that which is not cataloged, indexed or organized in any way.¹³⁴ Accordingly, the Delegation of the United States of America proposed that Article 11 be amended to add that "any Contracting Party shall be free to exclude from the prior art matter which is not identified and organized in a manner that makes the matter accessible to the public."¹³⁵ Even though this proposal did not receive any support at the

132. *Observations, supra* note 8, ¶ 11.C.

133. See 35 U.S.C. §§ 102(a), (b). Admittedly, such prior art is limited to knowledge or use by others of the invention in the United States "before the invention thereof by the applicant," 35 U.S.C. § 102(a), and public use or sale of the invention in the United States "more than one year prior to the date of the application for patent in the United States," 35 U.S.C. § 102(b). *Id.*

134. See *In re Cronyn*, 890 F.2d 1158, 1160-61 (Fed. Cir. 1989) (concluding that certain student theses "were not accessible to the public because they had not been either cataloged or indexed in a meaningful way" and holding that the theses were not "printed publications" under 35 U.S.C. § 102(b)); *cf. In re Hall*, 781 F.2d 897, 899 (Fed. Cir. 1986) (holding that a student thesis at a German University was a printed publication because the University library maintained a special dissertation catalogue).

135. See *Draft Article 11(2)*, The Delegation of the United States of America, Doc. PLT/DC/50 (June 10, 1991), reprinted in *Records, supra* note 5, at 151 (proposal by the Delegation of the United States of America to amend Article 11(2)(c)). That Delegation stated that the proposed amendment was motivated by concern that the formulation of the prior art in Article 11(2)(b):

[W]ould include a document made available to the public by, for example, being placed on a library shelf without having been indexed or in some

Diplomatic Conference,¹³⁶ the International Bureau of WIPO has suggested that the meaning of the word "available" in Article 11(2)(b) be clarified by adding the words "and effectively accessible" or by adding an explanatory note in the Records of the Diplomatic Conference.¹³⁷ If this suggestion is adopted by the Diplomatic Conference, the United States will be able to continue its practice of requiring documents to be indexed or cataloged in a meaningful way before they can be considered as a "printed publication" and, possibly, prior art. If not, United States law will have to be changed to discontinue that practice.

2. The Effect of So-Called "Secret Prior Art"

At seeming variance with the basic definition of "prior art" in Article 11(2)(b) which includes everything that had been "made available to the public," United States law provides that the secret commercial use of an invention by the patentee¹³⁸ and secret sales by the patentee¹³⁹ and third parties¹⁴⁰ may constitute a bar to patentability. Seeing this apparent variance, the Delegation of the United States of America proposed to add an Article to allow Contracting Parties to provide loss of rights provisions concerning, *inter alia*, secret sales or uses of an invention.¹⁴¹

other way made retrievable. . . . The inclusion in the prior art of the sort of unidentified and unorganized information that [that] Delegation sought to exclude would be conducive to legal uncertainty since it would only be by a matter of chance that it could be discovered by someone.

Summary Minutes I, supra note 20, ¶ 833, reprinted in *Records, supra* note 5, at 340.

136. *Summary Minutes I, supra* note 20, ¶¶ 911, 917, reprinted in *Records, supra* note 5, at 349, 350.

137. *Observations, supra* note 7, ¶ 11.B. Dr. Bogsch, the Director General of WIPO originally proposed to add the phrase "and effectively accessible" following the word "available" in Article 11(2)(b). *Summary Minutes I, supra* note 20, ¶ 897, reprinted in *Records, supra* note 5, at 348.

The explanatory note proposed by the International Bureau of WIPO reads as follows:

With respect to Article 11(2)(b), it was agreed that a document that has been produced only in a single copy or a very limited number of copies is to be considered as having been made available to the public only where at least one copy has been put in a place open to the public and has been catalogued or indexed, and the catalogue or index is accessible to the public.

Observations, supra note 8, ¶ 11.B.

138. See *Kinzenbaw v. Deere & Co.*, 741 F.2d 383 (Fed. Cir. 1984), cert. denied, 470 U.S. 1004 (1985); *D.L. Auld Co. v. Chroma Graphics Corp.*, 714 F.2d 1144 (Fed. Cir. 1983), cert. denied, 474 U.S. 825 (1985).

139. See *In re Caveney*, 761 F.2d 671 (Fed. Cir. 1985).

140. See *General Elec. Co. v. United States*, 654 F.2d 55 (Ct. Cl. 1981).

141. The proposal by the Delegation of the United States of America for a new Article 9bis entitled "Loss of Right" read, in pertinent part, as follows:

(1) Any Contracting Party shall be free to provide that the right to a patent shall be lost by the applicant where:

In discussions on the proposal by the Delegation of the United States, other participants observed that Article 11 does not require that a patent be granted when the conditions of patentability it prescribes are satisfied.¹⁴² The Chairman of Main Committee I of the Diplomatic Conference concluded that there was:

general agreement on the fact that nothing in the provisions of the Draft Treaty prevented a Contracting Party from providing for loss of the right to the patent under the circumstances described in paragraph (1) of Article 9*bis* of the proposal made by the Delegation of the United States of America, contained in document PLT/DC/40 Rev.¹⁴³

Accordingly, the International Bureau of WIPO suggested that the contents of paragraph (1) of Article 9*bis* appear "in a note in the Records of the Diplomatic Conference so that there would be no doubt that the United States of America could maintain the corresponding provisions in its law."¹⁴⁴

Given the general agreement on this point by the Diplomatic Conference and the note proposed by the International Bureau of WIPO, the United States will be able to retain the provision in its law that an applicant loses his or her right to a patent where the invention is sold or secretly used by the inventor or the applicant more than twelve months prior to the filing or priority date. Less

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- (i) the invention was placed on sale or secretly used by the inventor, successor-in-title or applicant more than 12 months preceding the filing date or, where priority is claimed, the priority date of the application, even if the invention was not, by virtue of being so placed on sale or secretly used, made available to the public; or
 - (ii) an application for an industrial property title was filed by the applicant outside the Contracting Party in violation of the national security provisions of the Contracting Party.

Draft Article 9bis, The Delegation of the United States of America, Doc. PLT/DC/40 Rev. (June 10, 1991), *reprinted in Records*, *supra* note 5, at 145.

142. *Summary Minutes I*, *supra* note 20, ¶ 815, *reprinted in Records*, *supra* note 5, at 337 (Intervention of Dr. Bogsch, Director General of WIPO, stating that "he did not read Article 11 as requiring that a patent had to be granted where the conditions of Article 11 were satisfied"); *id.* ¶ 811, *reprinted in Records*, *supra* note 5, at 336 (Intervention of the Delegation of Germany).

143. *Summary Minutes I*, *supra* note 20, ¶ 826, *reprinted in Records*, *supra* note 5, at 338.

144. *Observations*, *supra* note 8, ¶ 11.D. There, the International Bureau of WIPO proposed the following note:

It was understood that Article 11 did not affect the freedom of a Contracting Party to provide for a loss of right to file an application where

- (i) the inventor, his successor-in-title or the applicant had placed on sale or secretly used the invention in the territory of the Contracting Party more than 12 months preceding the filing date or, where priority is claimed, the priority date of the application even if the invention was not, by virtue of being so placed on sale or secretly used, made available to the public; or
- (ii) the applicant had filed in respect of the invention an application for an industrial property title outside the Contracting Party in violation of the national security provisions of the Contracting Party.

Id.

clear, however, is status of the provision in United States law which provides that placing an invention for sale by third parties may constitute a bar to patentability.¹⁴⁵ Neither the proposal by the Delegation of the United States¹⁴⁶ nor the note proposed by the International Bureau of WIPO¹⁴⁷ would, by their terms, allow a Contracting Party to establish a loss of right provision where a third party has placed an invention on sale more than twelve months prior to the filing date or priority date, where priority is claimed.

Notwithstanding the lack of explicit discussion of this point in the Notes of the Diplomatic Conference, it is reasonable to conclude that no provisions in the PLT, in particular Article 11, may prohibit such loss of rights provisions.¹⁴⁸ Accordingly, the United States should be able to continue its practice of barring the grant of a patent where a third party has placed an invention on sale more than twelve months prior to its filing date.¹⁴⁹

3. *The Effect of Experimental Use*

A body of case law has developed in the United States that excepts the experimental use of an invention, even if public, from constituting a "public use" of the invention.¹⁵⁰ Under the definition of

145. See *J.A. LaPorte, Inc. v. Norfolk Dredging, Co.*, 787 F.2d 1577, 1581 (Fed. Cir. 1986) (holding that the bar to patentability is not limited to sales by the inventor or his agent), *cert. denied*, 479 U.S. 884 (1986); *General Elec. Co. v. United States*, 654 F.2d 55, 61-62 (Ct. Cl. 1981) (stating that "it is well established that a placing of the invention 'on sale' by an unrelated third party more than 1 year prior to the filing of an application for patent by another has the effect under § 102(b) of invalidating a patent directed to that invention").

Section 102(b) provides: "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. 102(b) (1988).

146. See *supra* note 135 (discussing WIPO Doc. PLT/DC/50).

147. *Observations, supra* note 8, ¶ 11.D.

148. See PLT, *supra* note 5, art. 11. See also *supra* note 141 for the text of Article 9bis, the "Loss of Right" provision and *supra* note 137 reporting intervention of Director General of WIPO that Article 11 does not require a patent to be granted where conditions of Article 11 are satisfied.

149. Similarly, in light of the position of the Delegations at the Diplomatic Conference that satisfaction of the requirements of Article 11 does not compel the grant of a patent, the provision in § 102(c) that provides for the loss of right to a patent where the invention has been abandoned may continue in the United States after the adoption of the PLT.

150. See *Elizabeth v. Pavement Co.*, 97 U.S. (7 Otto) 126, 134 (1878) (stating that "the use of an invention by an inventor himself, or any other person under his direction, by way of experiment, and in order to bring the invention to perfection, has never been regarded as [a public use]"); Chisum notes that the experimental use doctrine seeks to balance the two policies of (i) allowing an inventor time to test and perfect his invention, and (ii) preventing an inventor from extending the term of a patent. DONALD S. CHISUM, PATENTS § 6.02[7] (1992). "This balance is achieved through application of a 'reasonable purpose' test: the inventor's purpose in undertaking activity that would otherwise constitute a public use must be one of experimentation, not commercial exploita-

"prior art" found in Article 11(2)(b), there is no such exception. The Delegation of the United States again proposed an amendment to the PLT that would allow it to continue this practice.¹⁵¹

At the first part of the Diplomatic Conference, the Delegation of the United States discussed the proposal regarding "experimental use" only briefly and drew no conclusions.¹⁵² The International Bureau of WIPO recommended, however, that the provisions proposed by the Delegation of the United States in Article 9*bis*(2) "should not be allowed."¹⁵³ If the Diplomatic Conference follows this recommendation, then the United States will be unable to continue its practice of considering an experimental use of an invention as an exception from a bar to patentability, especially where such use is public and occurs more than one year prior to the filing or priority date.

4. Obviousness

Article 11(3) states that:

An invention shall be considered to involve an inventive step (be non-obvious) if, having regard to the prior art as defined in paragraph (2), it would not have been obvious to a person skilled in the art at the filing date or, where priority is claimed, the priority date of the application

tion, and . . . the scope and length must be reasonable in terms of that purpose."
Id.

151. The proposal by the Delegation of the United States of America in this regard was also made in a new Article 9*bis* entitled "Loss of Right" which, in pertinent part, read as follows:

(2) Notwithstanding Article 11 and paragraph (1) of this Article, any Contracting Party shall be free to provide that the right to a patent shall not be lost to the applicant where the use of the claimed invention by the applicant more than 12 months preceding the filing date or, where priority is claimed, the priority date of the application, was experimental.

Draft Article 9bis, supra note 141, *reprinted in Records, supra* note 5, at 145.

152. *Summary Minutes I, supra* note 20, ¶¶ 959-64, *reprinted in Records, supra* note 5, at 354.

153. *Observations, supra* note 8, ¶ 11.E. There, the International Bureau of WIPO stated the following:

As regards paragraph (2) of the proposed Article 9*bis*, this provision would amount to an option to extend the grace period beyond 12 months for the special case of public experimental use. Such an extension of the grace period would be contrary to the basic principle according to which the establishment of a grace period always has been considered a matter requiring a uniform solution in all Contracting Parties. If, for example, the Treaty would prescribe a minimum term for the grace period with an option for Contracting Parties to provide for a longer term, applicants intending to file applications in several countries could rely only on the shortest term existing in any of those countries, and third parties would have to take into account the various terms in order to ascertain whether a disclosure would have the benefit of the grace period. It is therefore believed that the proposed extension should not be allowed.

Id.

claiming the invention.¹⁵⁴

If this Article was adopted, the corresponding provision in United States law would have to be changed.¹⁵⁵ In particular, United States law must delete the provision that the obviousness determination be made "at the time the invention was made" and replace it with a provision that such a determination be made "at the filing date or, where priority is claimed, the priority date of the application claiming the invention."¹⁵⁶

E. Disclosures Not Affecting Patentability—The So-Called "Grace Period" Provisions

Article 12 requires that Contracting Parties establish the so-called "grace period" provisions into their national laws.¹⁵⁷ In particular, it provides that information disclosed by certain designated sources, which would otherwise affect the patentability of an invention claimed in an application, shall not affect the patentability of that invention if the information was disclosed during¹⁵⁸ the twelve

154. PLT, *supra* note 5, art. 11(3).

155. The corresponding provision in United States law is found in 35 U.S.C. § 103 (1988) which, in pertinent part, reads as follows:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Id.

156. PLT, *supra* note 5, art. 11(3).

157. *Id.* art. 12(1). As a procedural matter, the effects of the "grace period" provisions of Article 12(1) can be invoked at any time. *Id.* art. 12(3). This paragraph was added following a proposed amendment to that effect made by the Delegation of the United States at the Eighth Meeting of the Committee of Experts. *Draft Articles 9bis, 12, 13, 15, 18, 19, 21 and 24*, Proposal by the United States of America, Doc. HL/CE/VIII/14 (June 11, 1990). In introducing its proposal, the Delegation of the United States of America stated:

It seemed that some countries required that the grace period be invoked at the time of filing a patent application. However, in many cases, applicants may not be aware at the time of filing their application that disclosures for which the grace period could be invoked had been made. The proposal would ensure that the applicant or patent owner could claim the benefit of the grace period at any time during the patent granting procedure or even after the grant of the patent, for example, during invalidation proceedings.

Report on the First Part of the Eighth Session, supra note 125, ¶ 386.

Moreover, if the applicability of the "grace period" provisions of Article 12(1) are contested, "the party invoking the effects of that paragraph shall have the burden of proving, or of making the conclusion likely, that the conditions of that paragraph are fulfilled." PLT, *supra* note 5, art. 12(4).

158. The International Bureau of WIPO has observed that "[a]n application filed by the inventor or by a third party may have a prior art effect under Article 13, so that it is to be treated as a disclosure not on the date of its publication but on its filing or priority date." *Observations, supra* note 8, ¶ 12.B. It has

months preceding the filing or priority date of the application.¹⁵⁹

The designated sources are:

(i) the inventor,¹⁶⁰ (ii) an Office and the information was contained (a) in another application filed by the inventor and should not have been disclosed by the Office, or (b) in an application filed without the knowledge or consent of the inventor by a third party which obtained the information direct or indirectly from the inventor; or, (iii) a third party which obtained the information direct or indirectly from the inventor.¹⁶¹

Under United States law, a "grace period" is provided which is ambivalent as to the source and circumstances of disclosure.¹⁶² Thus, while disclosures by the inventor are certainly not bars to patentability if made within twelve months of the filing date,¹⁶³ neither are disclosures by third parties.¹⁶⁴

Article 12(1) would require a restriction on the "grace period" provision of section 102(b). Under Article 12(1), the only information disclosed by third parties during the "grace period" not affecting the patentability of an invention is that which is obtained "direct or indirectly from the inventor."¹⁶⁵ Thus, the United States would have to change its patent law such that any other information disclosed by third parties prior to the filing or priority date *would* affect patentability of an invention.

At the same time, United States law must be made more generous to foreign applicants. Presently, United States law provides that:

[N]o patent shall be granted on any application for patent for an invention which had been patented or described in a printed publication in

recommended, therefore, that after the term "during" which appears in Article 12(1), the following be added: "during, or with effect under Article 13 on a date during." *Id.*

159. PLT, *supra* note 5, art. 12.

160. The term "inventor" is defined for the purposes of Article 12(1) as also meaning "any person who, at the filing date of the application, had the right to the patent." *Id.* art. 12(2). The International Bureau of WIPO suggested "that the case where a person had the right to a patent only before the filing date but no longer at the filing date (for example, the case of an assignment of that right) should be covered. Consequently, it is suggested that the words 'or before' be inserted after the word 'at' [in Article 12(2)]." *Observations, supra* note 8, ¶ 12.C.

161. PLT, *supra* note 5, arts. 12(1)(i)-(iii).

162. See 35 U.S.C. § 102(b) (providing that a person shall be entitled to a patent unless "the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States").

163. *Id.*

164. See *J.A. LaPorte, Inc. v. Norfolk Dredging Co.*, 787 F.2d 1577, 1581 (Fed. Cir. 1986) (stating that § 102(b) is not limited to sales by the inventor, but may result from activities of a third party), *cert. denied*, 479 U.S. 884 (1986), *cert. denied*, 479 U.S. 884 (1986).

165. PLT, *supra* note 5, art. 12(1)(iii).

any country more than one year before the date of the actual filing of the application in [the United States], or which had been in public use or on sale in [the United States] more than one year prior to such filing.¹⁶⁶

If the PLT is adopted, the United States must delete this provision or otherwise amend it to provide that the "grace period" runs retrospectively from not only the date of the actual filing of an application in the United States, but also from the priority date of the application.¹⁶⁷ Clearly, this would primarily benefit foreign applicants claiming priority to applications originally filed abroad.

F. The Prior Art Effect of Certain Applications

1. The Principle of "Whole Contents"

A necessary adjunct to the principle that a patent is awarded to the first inventor to file an application is the provision in Article 13(1)(a). Article 13(1)(a) provides that the whole contents of an application as filed in a Contracting Party shall be considered as prior art from its filing date, on condition that it is subsequently published.¹⁶⁸ Because the United States currently follows the first-to-invent principle, first-filed and subsequently published applications do not necessarily constitute prior art to later-filed applications.¹⁶⁹ Accordingly, the legislature will have to amend United States law to establish the prior art effect of earlier-filed applications,¹⁷⁰ which are subsequently published, to later-filed applications.

Such a change would reverse the holdings in the *In re Hilmer* cases.¹⁷¹ These cases established that a patent is effective as a prior

166. 35 U.S.C. § 119 (1988).

167. The corresponding limitation of the "grace period" in 35 U.S.C. § 102(b) to one year "prior to the date of application for patent in the United States" will have to be similarly amended. 35 U.S.C. § 102(b).

168. PLT, *supra* note 5, art. 13(1)(a). *But see id.* art. 13(2) (providing that, if an application "has been published in spite of the fact that, before the date of its publication, it was withdrawn or abandoned, was considered withdrawn or abandoned, or was rejected, it shall not be considered as prior art for the purposes of paragraph (1)(a)").

169. Indeed, under United States law, applications are maintained in secrecy until the date of issuance, 35 U.S.C. § 122, and, as such, do not qualify as prior art under any of the provisions of 35 U.S.C. § 102. 35 U.S.C. § 102(e) is inapposite because it establishes the prior art effect of a *patent* granted on an application filed in the United States before the invention by the applicant. 35 U.S.C. § 102(e).

170. The date on which earlier-filed applications would have prior art effect would have to be fixed at either the actual filing date in the United States under Article 13(1)(a), or, where the priority of an earlier application for a patent, utility model or other title protecting an invention is claimed, the priority date. PLT, *supra* note 5, art. 13(1)(b).

171. *See In re Hilmer*, 424 F.2d 1108 (C.C.P.A. 1970) (holding that a patent application filed in the United States which claims priority to an earlier foreign-

art reference only as of its United States filing date under section 102(e) and (g).¹⁷² By adopting Article 13, the United States would be required to abolish the *Hilmer* doctrine and instead establish the prior art effect of foreign applications subsequently filed in the United States as of their priority date, provided the applications are subsequently published.¹⁷³

One question considered at the first part of the Diplomatic Conference was the purpose to which such applications could be put once the prior art effect of previously-filed, yet unpublished applications had been established. The first sentence of Article 13(1)(a) provides that such applications shall be considered prior art for the purpose of determining novelty of an invention claimed in a later-filed application.¹⁷⁴ The second sentence provides, however, that a Contracting Party may "consider the whole contents of the former application to be prior art also for the purpose of determining whether the invention satisfies the requirement of inventive step (non-obviousness)."¹⁷⁵

The second sentence of Article 13(1)(a) was added at the instigation of the Delegation of the United States.¹⁷⁶ However, despite opposition by the Delegation of the United States, the consensus at the first part of the Diplomatic Conference was to delete that sentence.¹⁷⁷ Notwithstanding this apparent consensus, the International Bureau of WIPO has suggested that the sentence be maintained.¹⁷⁸

filed application is "prior art" under § 102(g) only as of its actual filing date in the United States); *In re Hilmer*, 359 F.2d 859 (C.C.P.A. 1966) (holding that a patent application filed in the United States which claims priority to an earlier foreign-filed application is "prior art" under 102(e) only as of its actual filing date in the United States); but see *In re Deckler*, 977 F.2d 1339 (Fed. Cir. 1992) (declining to extend the *Hilmer* cases).

172. See *supra* note 171 for a discussion of the *Hilmer* cases.

173. PLT, *supra* note 5, art. 13(1).

174. *Id.* art. 13(1)(a).

175. *Id.*

176. See *Draft Articles 9bis, 12, 13, 15, 18, 19, 21 and 24, supra* note 157 (Statement by the Delegation of the United States proposing to modify paragraph (1)(a) of Article 13 to permit any Contracting Party "to extend the prior art effect of an application which is published to inventive step (non-obviousness) in addition to novelty"); *Report on the First Part of the Eighth Session, supra* note 125, ¶ 440 (statement by the Delegation of the United States to the same effect).

177. *Report on the First Part of the Eighth Session, supra* note 125, ¶¶ 440-72; *Summary Minutes I, supra* note 20, ¶¶ 966-92, reprinted in *Records, supra* note 5, at 355-59.

178. *Observations, supra* note 8, ¶ 13.B (observing that the option provided for in the last sentence of Article 13(1)(a) "would be needed by one country, namely by the United States of America," that the remainder of Article 13(1)(a) would cause the United States to make an important concession in abandoning the *Hilmer* doctrine and that the provisions of the last sentence of Article 13(1)(a) introduce advantages that can be enjoyed by both foreign and domestic applicants in the United States).

If the suggestion of the International Bureau is adopted, the United States would have the option of introducing legislation to establish the prior art effect of earlier-filed, yet unpublished, applications for the purpose of determining both novelty and non-obviousness. If the suggestion is not adopted, the United States would be limited to establishing the prior art effect of such applications only for the purpose of determining novelty.¹⁷⁹

2. Principle of "Self-Collision"

A problem arises under Article 13(1)(a) when two applications are filed by the same applicant or the same inventor. In such a case, an earlier-filed application, if it is subsequently published, is prior art to a later-filed application. The principal concern is that an earlier-filed application may disclose, but not claim, an invention which, due to the operation of Article 13(1)(a), the applicant would be precluded from claiming in a later-filed application. Countries having systems of internal priority, whereby a later-filed application may claim priority to the earlier-filed application,¹⁸⁰ do not perceive this so-called "self-collision" as being a problem.¹⁸¹ In cases where a priority claim is made, the later-filed application will assume the filing date of the earlier-filed application and the provisions of Article 13(1) will have no effect.

Other countries, including the United States, have pushed for a prohibition against self-collision in the form of an exception to Article 13(1), such as that found in Article 13(4). That exception would allow Contracting Parties not to apply Article 13(1) "when the applicant of, or the inventor identified in, the former application, and the applicant of, or the inventor identified in, the application under examination, is one and the same person."¹⁸²

179. The effect of establishing the prior art effect of such applications only for the purpose of determining novelty would be, as stated by the Delegation of the United States, to sanction the granting of patents on inventions having only obvious differences over inventions claimed in earlier-filed patent applications. *Summary Minutes I, supra* note 20, ¶ 972, reprinted in *Records, supra* note 5, at 356.

180. To claim internal priority, the later-filed application normally has to be filed within a certain period of time of the filing date of the application to which it claims priority. This period of time is usually 12 months.

181. See *Observations, supra* note 8, ¶ 13.D.

182. PLT, *supra* note 5, art. 13(4)(a). A provision excluding self-collision is seen as being "needed in the United States of America, Japan and some other countries, whereas European countries, mainly because they provide for the possibility of claiming internal priority, do not need it. However, foreign applicants in Europe would be interested in having a provision excluding self-collision." *Observations, supra* note 8, ¶ 13.D. To address the feeling, in particular among European delegations, that there was no need for a provision against self-collision, subparagraph (b) to Article 13(4) was proposed such that "[a]ny Contracting Party that considers the whole contents of the former application

While it appears that the Diplomatic Conference will adopt such an exception, the question remains as to whether the exception will be mandatory or optional for Contracting Parties. After some discussion at the first part of the Diplomatic Conference, the Chairman of Main Committee I concluded that there was a slight majority in favor of making Article 14(4) optional.¹⁸³ Nonetheless, the International Bureau of WIPO has suggested that the prohibition against self-collision be made mandatory¹⁸⁴ and that a prohibition against double patenting, originally proposed by the Delegation of the United States,¹⁸⁵ be added.¹⁸⁶ The new version of Article 13(4) suggested by the International Bureau of WIPO reads as follows:

(4) [*Self-Collision*] Paragraph (1) shall not apply when the applicant of, or the inventor identified in, the former application, and the applicant of, or the inventor identified in, the application under examination, is one and the same person, provided that only one patent may be validly granted by the same Office for the same invention.¹⁸⁷

United States law deals with the problem of self-collision under the doctrine of "double patenting" in a three-tier approach. First, if the claims in the two applications are patentably distinct, then two independent patents will be granted. Second, in the event the two claims are obvious variants of one another, yet otherwise patentable, two patents will issue, with the patent issuing later subject to a terminal disclaimer.¹⁸⁸ Finally, if the claims in the two applications are identical, the double patenting rejection cannot be overcome with a terminal disclaimer.¹⁸⁹

If the Diplomatic Conference adopts the International Bureau of WIPO's suggestion with respect to Article 13(4), either in a mandatory or facultative form, the United States will be able to

to be prior art only for the purpose of determining the novelty of the invention shall be free not to apply subparagraph (a)." PLT, *supra* note 5, art. 13(4)(b).

183. *Summary Minutes I*, *supra* note 20, ¶ 1066, reprinted in *Records*, *supra* note 5, at 369.

184. Notwithstanding the stated desire by certain European countries not to have such a provision, the International Bureau of WIPO stated that "[t]he fact that European countries feel that such a provision is not needed does not mean that such a provision would be disadvantageous for them," *Observations*, *supra* note 8, ¶ 13.D, and then proposed that such a provision not only be included in the PLT, but that it be made mandatory.

185. See *Draft Article 13*, The Delegation of the United States of America, Doc. PLT/DC/51 (June 10, 1991), reprinted in *Records*, *supra* note 5, at 152 (proposing a new paragraph (5) to Article 13 to read as follows: "Not more than one patent shall be granted on two or more applications by the same applicant or inventor to the extent that they claim identical subject matter.").

186. *Observations*, *supra* note 8, ¶ 13.D

187. *Id.*

188. *In re Longi*, 759 F.2d 887 (Fed. Cir. 1985).

189. *Quad Envtl Technologies Corp. v. Union Sanitary Dist.*, 946 F.2d 870, 875 n.7 (Fed. Cir. 1991).

continue its practice concerning double patenting.¹⁹⁰

III. CHANGES TO ISSUED PATENTS AND REVOCATION

A. Making Changes to Issued Patents

Article 17(1) requires patent owners to be given the right "to request the competent Office to make changes in the patent in order to limit the extent of the protection conferred by it."¹⁹¹ The provisions in United States law regarding the reissue of defective patents¹⁹² are consistent with Article 17(1).¹⁹³

Article 17(3) allows Contracting Parties to provide in their national laws that an owner of a patent may request the competent Office to correct mistakes or errors, other than those referred to in paragraph (2), discussed below, where such mistakes are made in good faith. There is a provision in Article 17(3) that "where the change would result in a broadening of the extent of protection conferred by the patent, no request may be made after the expiration of two years from the grant of the patent."¹⁹⁴ The corresponding provision in United States law, that "[n]o reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent,"¹⁹⁵ is consistent with Article 17(3).

190. See *Summary Minutes I*, *supra* note 20, ¶ 1036, *reprinted in Records*, *supra* note 5, at 364. The United States Delegation proposal, contained in WIPO Document PLT/DC/51, "would not require that the whole contents of an earlier application be applied to a later one, but that it would prevent the issuance of two patents to the same inventor or applicant for the same invention." *Id.* The Delegation also stated that "the problem of the issuance of patents on obvious variations could be addressed with terminal disclaimers." *Id.*

191. PLT, *supra* note 5, art. 17(1).

192. 35 U.S.C. §§ 251, 252 (1988).

193. The International Bureau of WIPO has suggested adding a sentence to Article 17(1) as follows: "However, the said Office may refuse a requested limitation where the purpose of the limitation is to take into consideration an item of prior art of which the owner of the patent was aware at a time when he could still amend or correct the application." *Observations*, *supra* note 8, ¶ 17.B. The origin of this suggestion is a proposal made by the Delegation of the United States of America at the first part of the Diplomatic Conference to add a sentence to Article 17(1) which read: "A Contracting Party shall be free to provide that changes made must be to correct errors made in good faith." *Draft Article 17(1)*, The Delegation of the United States of America, Doc. PLT/DC/54 (June 10, 1991), *reprinted in Records*, *supra* note 5, at 153. To illustrate a lack of good faith, the Delegation of the United States of America "gave the example of a hypothetical situation in which the owner of a patent obtained a patent with broad claims, while being aware of prior art that would narrow the claims." *Summary Minutes I*, *supra* note 20, ¶ 1314, *reprinted in Records*, *supra* note 5, at 404-05. The International Bureau of WIPO's proposal was made because it perceived problems may evolve in the interpretation of the term "good faith." *Observations*, *supra* note 7, ¶ 17.B.

194. PLT, *supra* note 5, art. 17(3).

195. 35 U.S.C. § 251.

Article 17(3) continues that "the change shall not affect the rights of any third party which has relied on the patent as published."¹⁹⁶ The United States patent law concerning so-called "intervening rights"¹⁹⁷ is consistent with this provision in Article 17(3).

Article 17(2) would require owners of patents to be given the right "to request the competent Office to make changes in the patent in order to correct obvious mistakes or to correct clerical errors."¹⁹⁸ This is consistent with United States law which provides for the issuance of a certificate of correction in the event of a mistake in a patent having been made by the USPTO¹⁹⁹ or in the event of a "mistake of a clerical or typographical nature" having been made by the applicant.²⁰⁰

Article 17(4) states that "[n]o change in the patent shall be permitted under paragraphs (1) or (3) where the change would result in the disclosure contained in the patent going beyond the disclosure contained in the application as filed."²⁰¹ This is consistent with United States law regarding reissue applications which states that "[n]o new matter shall be introduced into the application for reissue."²⁰²

Similarly, the Commissioner may not issue a certificate of correction for an applicant's mistake if the "changes in the patent . . .

196. PLT, *supra* note 5, art. 17(3).

197. See 35 U.S.C. § 252. Section 252 provides in pertinent part as follows: No reissued patent shall abridge or affect the right of any person or his successors in business who made, purchased or used prior to the grant of a reissue anything patented by the reissued patent, to continue the use of, or to sell to others to be used or sold, the specific thing so made, purchased or used, unless the making, using or selling of such thing infringes a valid claim of the reissued patent which was in the original patent.

Id.

198. PLT, *supra* note 5, art. 17(2).

199. 35 U.S.C. § 254 (1988).

200. See 35 U.S.C. § 255 (1988) (requiring a showing "that such mistake occurred in good faith" prior to the Commissioner exercising his discretion to issue a certificate of correction). This requirement that does not appear in Article 17(2). PLT, *supra* note 5, art. 17(2). Arguably, though, such a requirement is implicit in Article 17(2) because "obvious mistakes" or "clerical errors" are, by their nature, inadvertent and, therefore, made in "good faith," or at least exhibit a lack of bad faith. The way in which the requirement of "good faith" is dealt with in other paragraphs in Article 17, however, argues against its being implicit in paragraph (2). For example, the Delegation of the United States of America proposed that Article 17(1) require that any request for changes be made in "good faith" as a precondition to such changes. However, this proposal was not accepted. See *supra* note 193. Moreover, the International Bureau of WIPO has suggested that the words "made in good faith" be omitted from Article 17(3). *Observations, supra* note 8, ¶ 17.D. It appears necessary, therefore, that the requirement found in 35 U.S.C. § 255 of a showing that a mistake occurred in good faith must be deleted.

201. PLT, *supra* note 5, art. 17(4).

202. 35 U.S.C. § 251.

would constitute new matter"²⁰³ In the case of a certificate of correction occasioned by a mistake of the USPTO, the mistake must be one "clearly disclosed by the records of the Office"²⁰⁴ and therefore cannot be one that goes beyond the disclosure in the application as filed.

Thus, it appears that Article 17, if adopted, would require United States law to delete the requirement found in section 255 that a certificate of correction of an applicant's mistake may be issued only upon "a showing . . . that such mistake occurred in good faith"²⁰⁵ No other changes to the United States law appear necessary for United States compliance with Article 17, if adopted in its present form.

B. Administrative Revocation Provisions of the PLT and Reexamination Practice in the United States

Article 18(1) requires Contracting Parties to provide for the revocation of patents granted after substantive examination.²⁰⁶ With regard to such patents, "any person shall have the right to request the competent Office to revoke the patent, in whole or in part, at least on the ground that, because of one or several documents available to the public, the conditions of novelty or inventive step are not satisfied."²⁰⁷ United States law provides an opportunity for any person at any time to file a request for reexamination by the Office of any claim of a patent on the basis of certain specified prior art.²⁰⁸ United States law, therefore, is consistent with Article 18(1)(a).

As to the time frame in which a person can request revocation, Article 18(1)(b) provides that the period "shall commence from the announcement in the official gazette of the grant of the patent and shall not be less than six months."²⁰⁹ United States law is consistent with this provision since it provides that a request for reexamination may be filed "at any time during the period of enforceability of a patent"²¹⁰ Moreover, United States law²¹¹ is consistent with the requirement found in Article 18(1)(c) that a request for

203. *Id.* § 255.

204. *Id.* § 254.

205. *Id.* § 255; *see also supra* note 200.

206. PLT, *supra* note 5, art. 18(1).

207. *Id.* art. 18(1)(a).

208. 35 U.S.C. § 302. The specified prior art is defined in § 301 to include "patents or printed publications" which are believed by the person citing them to the USPTO to have a bearing on the patentability of any claim of particular patent. *Id.* § 301.

209. PLT, *supra* note 5, art. 18(1)(b).

210. 37 C.F.R. § 1.510(a) (1992). Under current USPTO practice, the issuance date of a patent is the same as the date the notice of the issuance appears in the Patent Official Gazette. *See* MPEP, *supra* note 47, § 1703.

revocation may not be "based on grounds of non-compliance with formal or procedural requirements."²¹²

More problematic are paragraphs (d) and (e) of Article 18(1) which address the procedures to follow once a person requests revocation.²¹³ Under 35 U.S.C. section 304, if a third party requests reexamination, the patent owner can respond to the request. Following that, the third-party requestor is afforded an opportunity to reply to the patent owner's response. Thereafter, the proceedings before the USPTO are conducted *ex parte*, with the third-party requestor excluded. Therefore, under United States practice, even if the USPTO "departs" from the original request after the inception of the *ex parte* proceedings, the third-party requestor has no opportunity to "present his arguments on the grounds on which the office intends to depart from the request." The third-party requestor's lack of an opportunity to present an argument is contrary to the provisions of Article 18(1)(d), thus necessitating a change to United States law.²¹⁴

211. The statutory basis for requesting reexamination of a patent is prior art, consisting of patents or printed publications, which bear on the patentability of a claim of the patent. 35 U.S.C. §§ 301, 302.

212. PLT, *supra* note 5, art. 18(1)(c).

213. *Id.* arts. 18(1)(d), 18(1)(e). Paragraphs (d) and (e) of Article 18(1) read as follows:

- (d) No decision may be made by the Office departing from the request unless the person having made the request has had at least one opportunity to present his arguments on the grounds on which the Office intends to depart from the request.
- (e) The Office may not revoke the patent, in whole or in part, at the request of a third party, unless the owner of the patent has had at least one opportunity to present his arguments on the grounds on which the Office intends to revoke the patent.

Id.

214. The International Bureau of WIPO has suggested that subparagraphs (d) and (e) of Article 18(1) be redrafted as follows:

- (d) Where the Office intends to depart from the request for revocation, the party requesting revocation shall have at least one opportunity to present full arguments to the Office.
- (e) The owner of the patent, even where he is the party which initiated the procedure, shall have at least one opportunity, before the patent is revoked,
 - (i) to amend at least the claims and
 - (ii) to present full arguments to the Office on the grounds on which the Office intends to base its decision to revoke the patent.

Observations, supra note 8, ¶ 18.B. The foregoing change suggested by the International Bureau would still not enable the United States to continue its present law. In particular, under United States law, third party requestors do not have "at least one opportunity to present full arguments to the Office" if the Office intends to depart from the request for revocation as would be required by the redrafted version of subparagraphs (d) and (e) of Article 17(1).

IV. THE PATENT TERM, SCOPE OF PROTECTION AND ENFORCEMENT OF RIGHTS

By strange twists in the negotiations on the PLT, several anomalies exist in the provisions relating to patent term and scope of protection. The negotiations no longer address the length of term,²¹⁵ but they do address the starting date.²¹⁶ Moreover, even though the PLT Regulations do not address the rights conferred by a patent,²¹⁷ they do consider the derogation from those rights by a "prior user."²¹⁸ This Section discusses these issues as well as the extent of protection and interpretation of claims,²¹⁹ and enforcement of rights.²²⁰

A. *The Starting Point for the Patent Term*

United States law currently provides that the term of a patent (17 years) begins on the date of issuance of the patent.²²¹ Article 22(2)(a) of the PLT would require the starting date to be changed to the "filing date of the application on which the patent is granted, whether or not the application claims the priority of another application."²²²

The change required to United States law by Article 22(2) is deeper than that, however. In the case of patents maturing from continuation, continuation-in-part and divisional applications, the starting date of the patent term is the filing date of the earliest-filed parent application invoked.²²³

215. The Assembly of the Paris Union recommended that Article 22(1), which addressed the length of the patent term, not be included in the PLT. See *supra* note 17.

216. PLT, *supra* note 5, art. 22(2).

217. The Assembly of the Paris Union recommended that Article 19 which addressed this topic not be included in the PLT. See *supra* note 17.

218. PLT, *supra* note 5, art. 20.

219. *Id.* art. 21.

220. *Id.* art. 23.

221. See 35 U.S.C. § 154 (1988).

222. PLT, *supra* note 5, art. 22(2)(a).

223. PLT, *supra* note 5, art. 22(2)(b) which reads as follows:

Notwithstanding subparagraph (a), where an application ("the subsequent application") invokes one or more earlier applications without claiming the priority of any of those earlier applications, the starting date of the term of the patent granted on the subsequent application shall be the filing date of the earliest-filed application invoked in the subsequent application.

If there was ever any doubt that the provisions of Article 22(2)(b) were intended to apply to continuations or continuation-in-part applications, such doubt was erased by the note to Article 22. Notes on the Basic Proposal for the Treaty and Regulations, Doc. PLT/DC/4 (Dec. 21, 1990), ¶ 22.03, *reprinted in Records, supra* note 5 at 77. That note states that the provisions of Article 22(2)(b) cover "the terms of patents granted on divisional applications, continuation applications and applications for continuation in part."

Thus, if Article 22(2) of the PLT is adopted in its present form, the changes to United States law would be two-fold: (i) the term of a patent would begin on its filing date, rather than its date of issuance, and (ii) in the case of continuation, continuation-in-part and divisional applications the term of a patent would begin even earlier—on the filing date of an parent application invoked in such an application.

B. *The Prior User Right Under the PLT*

So-called prior user rights exist in the national laws of many countries whereby “the owner of a patent cannot prohibit the use of the patented invention to a person who has started such use before the filing date or the priority date.”²²⁴ Article 20(1), defines a “prior user” in the following terms:

[A]ny person . . . who, in good faith,²²⁵ for the purposes of his enterprise or business, before the filing date or, where priority is claimed, the priority date of the application on which the patent is granted, and within the territory where the patent produces its effect was using the invention or was making effective and serious preparations for such use²²⁶

Under Article 20(1), the right enjoyed by a prior user is two-fold.

224. *Memorandum of the International Bureau, Committee of Experts on the Harmonization of Certain Provisions in Laws for the Protection of Inventions*, WIPO, 4th Sess., ¶ 18, Doc. HL/CE/IV/INF/2 (Sept. 7, 1987). This document is one of several memoranda on matters dealt with in the PLT which was prepared by the International Bureau of WIPO for use by the Committee of Experts which drafted the PLT.

225. The question of what constitutes “good faith” in the context of Article 20 has been the subject of some debate in the PLT negotiations, particularly, with regard to the impact of the grace period provisions of Article 12. On the one hand, the Delegation of the United States stated, in its discussion on the importance of the term “good faith,” that it “intended to ensure that a disclosure made during the grace period did not give rise to prior users’ rights.” See *Summary Minutes I*, *supra* note 20, ¶ 1515, reprinted in *Records*, *supra* note 5, at 343. On the other hand, many delegations insisted that the first-to-file principle should not degenerate into a “first-to-publish” principle through the grace period provision of Article 12. See *id.* ¶ 1473, reprinted in *Records*, *supra* note 5 at 429 (intervention of the Delegation of Denmark, on behalf of itself and the Delegations of Belgium, Finland, France, Norway, and Sweden, stating that it was important to ensure that the grace period would not have the effect of a quasi-priority right so that “the first-to-file system did not degenerate into a first-to-publish system”). The implication of the European view is that a use based upon a disclosure during the grace period may give rise to prior user rights, if the use begins before the filing or priority date. See *id.* ¶ 1526, reprinted in *Records*, *supra* note 5 at 426 (the Chairman of Main Committee I concluded that a putative prior user who begins use of an invention, the knowledge of which was obtained from the inventor during the grace period, but knows that a patent application has been filed is not acting in good faith). *Id.* Although the debate continues, the issue will be moot if the Diplomatic Conference eliminates Article 20 altogether.

226. PLT, *supra* note 5, art. 20(1).

First, a patent "shall have no effect" on the prior user.²²⁷ Second, "any such person shall have the right, for the purposes of his enterprise or business, to continuous use or to use the invention as envisaged in such preparations."²²⁸ However, the PLT limits the ability of Contracting Parties to provide for the transferability of prior user rights. The prior user may transfer these rights only if they are "transferred or devolve together with [the] enterprise or business [of the prior user], or with that part of his enterprise or business in which the use or preparations for use have been made."²²⁹

Before considering the question of the changes required in United States law, a word on the present status of Article 20 is necessary. At the meeting of the Paris Union Assembly in September, 1992, the Delegation of the United States of America proposed that Article 20 be deleted in light of the decision to omit Article 19.²³⁰ The Assembly rejected this proposal but it left open the possibility that it may be made at the Diplomatic Conference.²³¹ The International Bureau of WIPO, however, suggested that neither alternative be adopted and that the PLT not include any article on prior user rights.²³² Thus, there is a strong possibility that Article 20 will not figure into the final version of the PLT. If the Diplomatic Conference omits Article 20, there will be no requirement that the United States change its law to adopt prior user rights.

If Article 20 remains in the PLT, Alternative A would make the provision facultative, meaning that a Contracting Party may, but need not, provide for prior user rights. If Alternative A were adopted, the United States would not be required to change its law to adopt prior user rights. Alternative B of Article 20, however, requires the recognition of prior user rights.²³³ Thus, if Alternative 20 is retained and Alternative B is adopted, the United States would be required to recognize prior user rights as defined in Article 20.

C. *Extent of Protection and Interpretation of Claims*

Article 21 provides for claim interpretation in the determination of the scope of patent protection.²³⁴ Although there is no statutory provision in the United States regarding the extent of protection and interpretation of claims, extensive jurisprudence ex-

227. *Id.*

228. *Id.*

229. *Id.* art. 20(2).

230. *Draft Report, supra* note 4, ¶ 13.

231. *Id.* ¶ 18.

232. *Observations, supra* note 8, ¶¶ 20.A, 20.B, 20.C.

233. PLT, *supra* note 5, art. 20.

234. *Id.* art. 21.

ists on these subjects.²³⁵

Article 21(1)(a) provides that claims, interpreted in light of the description and drawings,²³⁶ shall determine the extent of protection conferred by the patent. In addition to the description and drawings, United States case law allows courts to interpret claims by reference to the prosecution history,²³⁷ other claims,²³⁸ and any prior art.²³⁹

For the United States to comply with Article 21(1)(a), its practice with regard to claim interpretation may have to change in order to restrict the tools of interpretation. In particular, courts interpreting claims may be restricted to a consideration of only the claim being interpreted, the description and the drawings.²⁴⁰ This could be done, for example, by introducing Article 69(1) of the European Patent Convention, *mutatis mutandis*, into the patent law of the United States.²⁴¹

Article 21(2) establishes that "a claim shall be considered to cover not only all the elements as expressed in the claim but also equivalents."²⁴² United States law is consistent with this provision in that infringement may be established not only literally but also

235. See generally CHISUM, *supra* note 150, §§ 18.01-18.06 (discussing judicially created approaches to claim interpretation and infringement analysis, including the doctrine of equivalents, the reverse doctrine of equivalents, and prosecution history estoppel).

236. PLT, *supra* note 5, art. 21(1)(a). Article 21 is nearly identical to Article 69 of the European Patent Convention which reads as follows: "The extent of the protection conferred by a European patent or a European patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims." CONVENTION ON THE GRANT OF EUROPEAN PATENTS (EUROPEAN PATENT CONVENTION) done at Munich on Oct. 5, 1973 reprinted in 3 Common Mkt. Rep. (CCH) 91 5503 (1974).

237. *E.g.*, *Perini America, Inc. v. Paper Converting Mach. Co.*, 832 F.2d 581, 584 (Fed. Cir. 1987) ("Claims are construed by reference to the specification, the prosecution history, other claims, and expert testimony.").

238. *Id.*

239. See *Texas Instrument, Inc. v. United States ITC*, 846 F.2d 1369, 1370 (Fed. Cir. 1988) (holding that even in the case of a "pioneer" invention, "[t]he patentee's disclosure, the prosecution history, and the prior art still provide the background against which the scope of claims is determined.").

240. This restrictive view of the tools of claim interpretation came out in the early discussions by the Committee of Experts on the provision that became Article 21(1), "[i]t was agreed that the Article should make it clear that it was not obligatory to take into account the description and drawings, but that the description and drawings should be considered only if necessary." *Report*, *supra* note 55, ¶ 123 (reporting on discussions of Article 304, the precursor of Article 21(1)(a) in the PLT).

241. See *supra* note 236 for the text of Article 69(1) of the European Patent Convention.

242. PLT, *supra* note 5, art. 21(2)(a). The International Bureau of WIPO recommends that this subparagraph be amended to read as follows:

For the purpose of determining the extent of protection conferred by the patent, due account shall be taken of elements which are equivalent to the elements expressed in the claims so that a claim shall be considered to

under the doctrine of equivalents.²⁴³ Article 21(2)(b) and (c) allow a Contracting Party to choose which of two tests determine whether, at the time of any alleged infringement, an element exists as an equivalent to an element expressed in a claim.²⁴⁴ Of these two tests, one closely tracks the tripartite test laid down in *Graver Tank & Manufacturing Co. v. Linde Air Products, Co.* for determining if there is infringement under the doctrine of equivalents. The test provided in the PLT provides that an element is generally equivalent to a claimed element if "the equivalent element performs substantially the same function in substantially the same way and produces substantially the same result as the element as expressed in the claim"²⁴⁵ While this test for infringement may, at first blush, appear consistent with United States law under the authority of *Graver Tank* and its progeny, it is viewed by some as enshrining a mechanistic test for determining equivalents, rather than allowing courts to resort to their equitable jurisdiction to determine when and under what conditions they will find an infringement under the doctrine of equivalents.²⁴⁶

D. Enforcement of Patent Rights

Article 23(1) establishes the minimum rights the owner of a patent receives with respect to enforcement of the patent.²⁴⁷ Article 23(1) grants the owner of a patent the right to obtain an injunc-

cover not only all the elements as expressed in the claims but also equivalents.

Observations, *supra* note 8, ¶ 21.C.

243. See *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608-10 (1950) (describing the doctrine of equivalents and its history in the United States).

244. See PLT, *supra* note 5, art. 21(2)(b) and (c).

245. *Id.* art. 21(2)(b)(i). Compare *Graver Tank*, 339 U.S. at 608 ("To temper unsparing logic and prevent an infringer from stealing the benefit of an invention a patentee may invoke [the doctrine of equivalents] to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.'" [footnote and citations omitted]).

246. See Harold C. Wegner, *Equitable Equivalents: Weighing the Equities to Determine Patent Infringement in Biotechnology and Other Emerging Technologies*, 18 RUTGERS COMP. TECH. L. J. 40 (1992). In criticizing the PLT's test, the author noted:

The difficulty with the proposed treaty is that it proffers a mechanistic test for application of the doctrine of equivalents that parrots the mechanistic equivalency test from *Graver Tank*. While parroting *Graver Tank* as to identity of form, function and result, the proposed treaty does not mention copying or any other equitable considerations. This would mark a sharp departure from the equitable principles of American patent infringement case law [footnotes omitted].

Id. at 40.

247. PLT, *supra* note 5, art. 23.

tion and damages.²⁴⁸

1. *The Right to Obtain an Injunction*

Article 23(1)(i) provides that the owner of a patent can enjoin the performance or the likely performance, by an unauthorized person, of any acts infringing on the patentholder's product or process.²⁴⁹ Certainly, under United States law, the owner of a patent may obtain injunctive relief to prevent the performance of acts which require his authorization.²⁵⁰ Moreover, a patentee, under proper circumstances, may bring an action under the Declaratory Judgment Act²⁵¹ to enjoin the "likely performance" of acts requiring his authorization.²⁵² A question arises, however, as to whether this injunctive relief against "any person" extends to the Contracting Party itself, namely the United States.²⁵³ If so, United States law will have to be changed to allow such injunctive relief against the Government of the United States.²⁵⁴ Such a result seems unlikely, however, especially since most, if not all, of the

248. *Id.* art. 23(1). In view of the Paris Union Assembly's decision to delete Article 19, the International Bureau of WIPO recommended that reference to that Article in Article 23 be deleted. *Observations, supra* note 8, ¶ 23.B. Article 23(2) provides protection for patent applicants who find that others used their patent.

249. PLT, *supra* note 5, art. 23(1)(i).

250. See 35 U.S.C. § 283 (1988) (enabling courts having appropriate jurisdiction to "grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable").

251. 28 U.S.C. §§ 2201, 2202 (1982 & Supp. V 1987).

252. *Lang v. Pacific Marine & Supply Co.*, 895 F.2d 761 (Fed. Cir. 1990). In *Lang*, the court held:

To meet the controversy requirement in a declaratory judgment suit by a patentee against an alleged future infringer, two elements must be present: (1) the defendant must be engaged in an activity directed toward making, selling, or using subject to an infringement charge under 35 U.S.C. § 271(a) (1982), or be making meaningful preparation for such activity; and (2) acts of the defendant must indicate a refusal to change the course of its actions in the face of acts by the patentee sufficient to create a reasonable apprehension that a suit will be forthcoming.

Id. at 763.

253. The Delegation of the United States, at the first part of the Diplomatic Conference, proposed to add a new subparagraph to Article 23(1) to provide that "whenever an invention is used or manufactured by or for a Contracting Party for public, non-commercial purposes, any Contracting Party may provide that the owner shall only have the right to obtain damages in accordance with subparagraph (a)(ii)." *Draft Article 23, The Delegation of the United States of America*, Doc. PLT/DC/62 (June 12, 1991), *reprinted in Records, supra* note 5, at 160. The substance of this proposal was not, however, discussed at the first part of the Diplomatic Conference. See *Summary Minutes I, supra* note 20, ¶¶ 1780, 1781, *reprinted in Records, supra* note 5, at 480.

254. Presently, where a claimed invention is used by or for the United States, the sole remedy is an action in the United States Claims Court for the "reasonable and entire compensation for such use and manufacture." 28 U.S.C. § 1498(a) (1988).

countries participating in the Diplomatic Conference have similar provisions in their national law.

Another question arises as to the provision in United States law that allows a court to deny injunctive relief on behalf of a party asserting a reissue patent "for the protection of investments made or business commenced before the grant of the reissue."²⁵⁵ The result is to allow one "to continue to infringe a reissue patent if the court decides that equity dictates such a result."²⁵⁶ While this may appear to be contrary to Article 23(1)(i), it is consistent with Article 17(3). Article 17(3) provides, in the case of a broadening change in a patent, that "the change shall not affect the rights of any third party which has relied on the patent as published."²⁵⁷

2. *The Right to Obtain Damages*

Article 23(1)(ii) gives the owner of a patent the right "to obtain damages, adequate under the circumstances, from any person who, without his authorization, performed any of the acts [requiring his authorization] where the said person was or should have been aware of the patent."²⁵⁸ This provision is consistent with United

255. See 35 U.S.C. § 252. Section 252 provides:

No reissued patent shall abridge or affect the right of any person or his successors in business who made, purchased or used prior to the grant of a reissue anything patented by the reissued patent, to continue the use of, or to sell to others to be used or sold, the specific thing so made, purchased or used unless the making, using or selling of such thing infringes a valid claim of the reissued patent which was in the original patent. The court before which such matter is in question may provide for the continued manufacture, use or sale of the thing made, purchased or used as specified, or for the manufacture, use or sale of which substantial preparation was made before the grant of the reissue, and it may also provide for the continued practice of any process patented by the reissue, practiced, or for the practice of which substantial preparation was made, prior to the grant of the reissue, to the extent and under such terms as the court deems equitable for the protection of investments made or business commenced before the grant of the reissue.

Id.

256. *Seattle Box Co. v. Indus. Crating & Packing, Inc.*, 756 F.2d 1574, 1579 (Fed. Cir. 1985).

257. PLT, *supra* note 5, art. 17(3).

258. *Id.* art. 23(1)(ii). The International Bureau of WIPO has suggested that the words "was or should have been aware of the patent" be replaced by the words "had actual knowledge, or should have been aware, of the patent." *Observations, supra* note 8, ¶ 23.C.

In addition, the International Bureau has recommended that the following proviso be added to the end of subparagraph (ii) of Article 23(1):

[H]owever, any Contracting Party may, where the subject matter of the patent concerns a process and the act performed by the said person relates to a product directly resulting from the use of the patented process, limit the availability of damages to such acts performed after the person has received written notice that such acts were covered by a patent, such patent being identified in the said notice by its number.

Observations, supra note 8, ¶ 23.C.

States law which provides, in the event of an infringement, "the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court."²⁵⁹

A concept entirely new to United States law is required by Article 23(2): the so-called "provisional rights" or the right to enforcement based upon a published application.²⁶⁰ Provisional rights, as required by Article 23(2), would allow an applicant for a patent "to obtain reasonable compensation from any person who, without his authorization, performed any acts [requiring his authorization] as if a patent had been granted."²⁶¹ The United States would have to amend its law to provide for enforcement based on published applications pursuant to Article 23(2).²⁶²

CONCLUSION

Drawing any conclusions about the PLT requires four assumptions: (i) that the Diplomatic Conference will complete negotiations; (ii) that the PLT's content will be substantially the same as that discussed in this Article,²⁶³ even as modified in light of the Observations of the International Bureau of WIPO;²⁶⁴ (iii) that the United States will sign the PLT; and, (iv) that the United States will ratify the PLT. If one or more of these assumptions proves false, some of the conclusions drawn in this Article may no longer be valid.

259. 35 U.S.C. § 284 (1988). Moreover, the provisions in United States law requiring marking a patented article with the patent number or giving actual notice of infringement as a prerequisite to obtaining damages appear consistent with Article 23(1)(ii) that a person "was or should have been aware of the patent." PLT, *supra* note 5, art. 23(1).

260. An analogous situation exists with respect to intervening rights in respect of reissue applications. 35 U.S.C. § 251.

261. PLT, *supra* note 5, art. 23(2).

262. In enacting such legislation, Article 23(2) provides some guidance as to what is required. *Id.* A person from whom compensation is sought must have had actual knowledge "that the invention that he was using was the subject matter of a published application" or he must have "received written notice that the invention that he was using was the subject matter of a published application . . ." *Id.* arts. 23(2)(a)(i), 23(2)(a)(ii). A Contracting Party may provide that an action seeking compensation for the use of an invention claimed in a published application may be brought only after the grant of a patent on the published application. *Id.* art. 23(2)(b). Lastly, the extent of protection in a published application is determined by the claims. *Id.* art. 23(2)(c). Recognizing that the scope of claims may change during the examination of the application, the PLT provides that as between the published application and the issued patent, the extent of protection is determined by the claims with the narrower scope. *Id.* See also *Observations, supra* note 8, ¶ 23.E.

263. See PLT, *supra* note 5 (discussing WIPO Doc. PLT/DC/3—the Draft Treaty).

264. *Observations, supra* note 8.

If the assumptions prove to be correct, however, the United States will have to make the following changes to its patent law:

1. establish first-to-file, rather than first-to-invent, as the principle upon which a patent is granted when two or more inventors apply for a patent for the same invention;
2. eliminate interference practice, concomitant with the change identified in item 1;
3. provide that the entire contents of a previously filed and subsequently published application shall be prior art to a later-filed application, concomitant with the change identified in item 1;
4. repeal 35 U.S.C. section 104, concomitant with the change identified in item 1;
5. require that obviousness be determined at the time of filing or priority date, rather than at the time the invention was made, concomitant with the change identified in item 1;
6. substitute the requirement that an application include an oath with the requirement that an application include an express or implicit indication that a patent is sought;
7. provide for the publication of pending applications;
8. establish time limits for search and examination;
9. delete the requirement that claims shall, *inter alia*, define subject matter which "the applicant regards as his invention;"
10. delete current provisions regarding unity of invention and provide for a procedure based upon the European approach where inventions are linked to form a single general inventive concept;
11. provide a maximum time limit for submitting a claim of priority, which runs retrospectively from the date the application claiming priority is to be published;
12. delete the requirement that at least one claim appear in an application before that application receives a filing date;
13. overturn jurisprudence holding that an experimental use of an invention by the inventor is not a public use barring patentability;
14. restrict application of the "grace period" so that it applies only to third-party disclosures based on information obtained directly or indirectly from the inventor, and expand the temporal scope of the "grace period" with regard to foreign-filed applications to extend retrospectively from the priority date;
15. amend United States law and overturn jurisprudence (following the *In re Hilmer* line of cases) that an application, originally first filed abroad and claiming priority, is effective as prior art only as of its actual filing date in the United States;
16. delete the requirement of a showing that mistakes by an applicant of a clerical or typographical nature occurred in "good faith" as a prerequisite to the issuance of a certificate of correction;
17. amend United States law to afford a third-party requestor an opportunity to "present his arguments on the grounds on which the [USPTO] intends to depart from the request" during reexamination;
18. change the starting point for the term of a patent to the date of filing of an application, rather than from the date a patent issues; and

19. introduce "provisional rights" to allow for enforcement based upon a published application.

The following changes *may* have to be made to United States law, depending upon the outcome of the negotiations on the PLT:

1. If Alternative A in Article 8(4) is adopted, United States law will have to provide for filing of applications by reference to another previously filed application for the same invention;
2. Unless it is clarified in the Records of the Diplomatic Conference that Article 7(1) pertains only to delayed submissions of priority claims under the Paris Convention, and not to claims to the benefit of an earlier filing date in a divisional, continuation or continuation-in-part application, then United States law may have to limit the time during which a claim to such benefit may be made;
3. If the proviso in Article 6(2) is retained in its current mandatory form, United States law will have to provide an opportunity for inventors to request that publications of the USPTO not mention them as such;
4. If Article 20, dealing with prior user rights, is made mandatory on Contracting Parties, the United States will have to enact the necessary legislation to provide for prior user rights;
5. If Article 11(2)(c) is not adopted, the law would have to be changed so that the "prior art" would include everything made available to the public before the filing or priority date, anywhere in the world, whether in a tangible form, such as a written publication, or in an intangible form, such as through an oral communication or through display or use; and
6. Unless an appropriate amendment to Article 11(2)(b) is made, or a clarifying note entered into the Records of the Diplomatic Conference, the United States may have to discontinue its practice of requiring a document to be indexed or cataloged in a meaningful way before it can be considered as a "printed publication."

As stated at the outset of this Article, any analysis as to the changes to be wrought in United States law as a consequence of the adoption of the PLT is likely incomplete. The full scope of required changes will not emerge until implementing legislation is tested, first during its drafting and second, in court. Accordingly, the most that can be achieved here is to point out some areas of concern and, perhaps, stimulate additional thinking on the subject.

NOTE ON RULE 4*

(Details Concerning the Requirement of Unity of Invention
(and Article 5(1))

R4.01 *Paragraph (1)* contains the method for determining whether the requirement of unity of invention is satisfied in respect of a group of inventions claimed in an application. According to

* Excerpted from *Notes on the Basic Proposal for the Treaty and Regulations*, The Director General of WIPO, WIPO, Doc. PLT/DC/4 (Dec. 21, 1990).

that method, unity of invention will exist only when there is a technical relationship among the inventions involving one or more of the same or corresponding "special technical features." The expression "special technical features" is defined in paragraph (1) as meaning those technical features that define a contribution that each of the inventions, considered as a whole, makes over the prior art.

R4.02 *Independent and Dependant Claims.* Unity of invention has to be considered in the first place only in relation to the independent claims in an application and not the dependent claims. In the context of Rule 4, "dependent" claim is meant a claim which contains all the features of another claim and is in the same category of claim as that other claim (the expression "category of claim" referring to the classification of claims according to the subject matter of the invention claimed—for example, product, process, use or apparatus or means, etc.).

R4.03 If the independent claims are patentable and satisfy the requirement of unity of invention, no problem of lack of unity arises in respect of any claims that depend on the independent claims. In particular, it does not matter if a dependent claim itself contains a further invention. Equally, no problem arises in the case of a genus/species situation where the genus claim is patentable. Moreover, no problem arises in the case of a combination/subcombination situation where the subcombination claim is patentable and the combination claim includes all the features of the subcombination.

R4.04 If, however, an independent claim is not patentable, then the question whether there is still an inventive link between all the claims dependent on that claim needs to be carefully considered. If there is no link remaining, an objection of lack of unity *a posteriori* (that is, arising only after assessment of the prior art) should be raised. Similar considerations apply in the case of a genus/species or combination/subcombination situation.

R4.05 It is intended that the method contained in paragraph (1) for determining whether unity of invention exists should be able to be applied without it being necessary to search the prior art. Where the Office does search the prior art, an initial determination of unity of invention, based on the assumption that the claims are not invalidated by the prior art, might be reconsidered on the basis of the results of the search of the prior art. Where the Office does not search the prior art, unity of invention would be determined on the assumption that the claims are not invalidated by the prior art, unless it is obvious to the person making the determination that the claims are invalidated by the prior art.

R4.06 *Illustrations of Particular Areas.* There are three particular areas of practice where the application of the method for determining unity of invention contained in paragraph (1) of Rule 4 may be illustrated: (i) combinations of different categories of claims; (ii) so-called "Markush practice;" and (iii) the case of intermediate and final products. Principles for the interpretation of the method contained in paragraph (1) in the context of each of those areas are set out below. It is understood that the principles set out below are, in all instances, interpretations of and not exceptions to the requirements of paragraph (1) of Rule 4. Contracting Parties that wish to adopt, in their patent legislation, more detailed provisions on unity of invention than those contained in Article 5 and Rules 4 and 5 could include the substance of the principles of interpretation set out below.

R4.07 In order to secure the greatest possible harmonization of practice, Article 27(2)(a)(iii) empowers the Assembly to adopt guidelines for the implementation of provisions of the Treaty and the Regulations. Under that procedure, the Assembly could adopt, and revise where necessary, the principles of interpretation on the three areas of special concern referred to in the preceding paragraph and set out below. Alternatively, those principles of interpretation could be adopted in the form of an agreed text or statement by the Diplomatic Conference when the Treaty is adopted. The latter method, however, is less flexible, since the text could probably not be later modified in the light of experience in the way that guidelines could be modified by the Assembly.

R4.08 *Combinations of Different Categories of Claims.* The method for determining unity of invention contained in paragraph (1) of Rule 4 should be construed as permitting, in particular, the inclusion of any one of the following combinations of claims of different categories in the same application:

- (i) in addition to an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product, and an independent claim for a use of the said product, or
- (ii) in addition to an independent claim for a given process, an independent claim for an apparatus or means specifically designed for carrying out the said process, or
- (iii) in addition to an independent claim for a given product, an independent claim for a process specially adapted for the manufacture of the said product and an independent claim for an apparatus or means specifically designed for carrying out the said process,

it being understood that a process is specially adapted for the manufacture of a product if it inherently results in the product and that an apparatus or means is specifically designed for carrying out a process if the contribution over the prior art of the apparatus or means corresponds to the contribution the process makes over the prior art.

R4.09 As indicated in the last part of paragraph R4.08 above, a process should be considered to be specifically adapted for the manufacture of a product if the claimed process inherently results in the claimed product. The words "specifically adapted" are not intended to imply that the product could not also be manufactured by a different process. They are also not intended to imply that the same kind of process of manufacture could not also be used for the manufacture of other products.

R4.10 As also indicated in the last part of paragraph R4.08 above, an apparatus or means should be considered to be "specifically designed for carrying out" a claimed process if the contribution over the prior art of the apparatus or means corresponds to the contribution the process makes over the prior art. Consequently, it would not be sufficient that the apparatus or means is merely capable of being used in carrying out the claimed process. On the other hand, the words "specifically designed" should not imply that the apparatus or means could not be used for carrying out another process, or that the process could not be carried out using an alternative apparatus or means.

R4.11 "*Markush Practice.*" The situation involving the so-called "Markush practice" wherein a single claim defines alternatives (chemical or non-chemical) is also governed by Article 5 and Rule 4. In that special situation, the requirement of a technical interrelationship and the same or corresponding special technical features as defined in paragraph (1) of Rule 4 should be considered to be met when the alternatives are of a similar nature.

R4.12 When the Markush grouping is for alternatives of chemical compounds, they should be regarded as being of a similar nature where the following criteria are fulfilled:

- (a) all alternatives have a common property or activity, and
- (b) (i) a common structure is present, i.e., a significant structural element is shared by all of the alternatives; or
- (ii) in cases where the common structure cannot be the unifying criterion, all alternatives belong to a recognized class of chemical compounds in the art to which the invention pertains.

R4.13 In (b)(i), above, the words "significant structural element is shared by all of the alternatives" refer to cases where the compounds share a common chemical structure which occupies a large portion of their structures, or in case the compounds have in common only a small portion of their structures, the commonly shared structure constitutes a structurally distinctive portion in view of existing prior art. The structural element may be a single component or a combination of individual components linked together.

R4.14 In (b)(ii), above, the words "recognized class of chemical compounds" mean that there is an expectation from the knowledge in the art that members of the class will behave in the same way in the context of the claimed invention. In other words, each member could be substituted one for the other, with the expectation that the same intended result would be achieved.

R4.15 The fact that the alternatives of a Markush grouping can be differently classified should not, taken alone, be considered to be justification for a finding of a lack of unity of invention.

R4.16 When dealing with alternatives, if it can be shown that at least one Markush alternative is not novel, unity should be reconsidered by the examiner. Reconsideration should not necessarily imply that an objection of lack of unity must be raised.

R4.17 *Intermediate and Final Products.* The situation involving intermediate and final products is also governed by Article 5 and Rule 4.

R4.18 The term "intermediate" is intended to mean intermediate or starting products. Such products have the ability to be used to produce patentable final products through a physical or chemical change in which the intermediate loses its identity.

R4.19 Unity of invention should be considered to be present in the context of intermediate and final products where the following two conditions are fulfilled:

- (a) the intermediate and final products have the same essential structural element, i.e.,
 - (i) the basic chemical structures of the intermediate and the final products are the same, or
 - (ii) the chemical structures of the two products are technically closely interrelated, the intermediate incorporating an essential structural element into the final product, and
- (b) the intermediate and final products are technically interrelated, this meaning that the final product is manufactured directly from the intermediate or is separated from it by a

small number of intermediates all containing the same essential structural element.

R4.20 Unity of invention may also be considered to be present between intermediate and final products of which the structures are not known—for example, as between an intermediate having a known structure and a final product the structure of which is not known, or as between an intermediate of unknown structure and a final product of unknown structure. In order to satisfy unity in such cases, there should be sufficient evidence to lead one to conclude that the intermediate and final products are technically closely interrelated as, for example, when the intermediate contains the same essential element as the final product or incorporates an essential element into the final product.

R4.21 It should be possible to accept in a single application different intermediate products used in different processes for the preparation of the final product, provided that they have the same essential structural element.

R4.22 The intermediate and final products should not be separated, in the process leading from one to the other, by an intermediate which is not new.

R4.23 If the same application claims different intermediates for different structural parts of the final product, unity should not be regarded as being present between the intermediates.

R4.24 If the intermediate and final products are families of compounds, each intermediate compound should correspond to a compound claimed in the family of the final products. However, some of the final products may have no corresponding compound in the family of the intermediate products so that the two families need not be absolutely congruent.

R4.25 As long as unity of invention can be recognized applying the above guidelines, the fact that, besides the ability to be used to produce final products, the intermediates also exhibit other possible effects or activities should not affect the decision on unity of invention.

R4.26 Paragraph (2) requires that the determination of the existence of unity of invention be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

R4.27 Paragraph (2) is not intended to constitute an encouragement to the use of alternatives within a single claim, but is intended to clarify that the criterion for the determination of unity of inven-

tion (namely, the method contained in Rule 4(1)) remains the same regardless of the form of claim used.

R4.28 Paragraph (2) does not prevent an Office from objecting to alternatives being contained within a single claim on the basis of considerations such as clarity, the conciseness of claims or the claims fee system applicable in that Office.

